AMSTRAD

PC2086 S/D/30
PERSONAL COMPUTER
PC12 MD / PC12 HRCD
PC14 CD / PC14 HRCD
MONITORS

SERVICE MANUAL

CONTENTS

	Page
Technical Specification	2
Safety Tests	2
PC2086 S/D/30 SECTION	
PC2086 S/D/30 Alignment Instructions	3
PC2086 S/D/30 Electrical Parts List	4
PC2086 S/D/30 Mechanical Exploded View	5
PC2086 S/D/30 Keyboard Exploded View	6
PC2086 S/D/30 Main LED PCB Top View	7
PC2086 S/D/30 Main LED PCB Bottom View	8
PC2086 S/D/30 Power Switch PCB	9
PC2086 S/D/30 Memory 4 Disc Controller Chassis Schematic Diagram	10
PC2086 S/D/30 CPU Memory Chassis Schematic Diagram	11
PC2086 S/D/30 Expansion Bus Chassis Schematic Diagram	12
PC2086 S/D/30 Printer Port Control Chassis Schematic Diagram	13
PC2086 S/D/30 Support Controller Chassis Schematic Diagram	14
PC2086 S/D/30 Video Chassis Schematic Diagram	15
PC2086 S/D/30 Keyboard Controller Chassis Schematic Diagram	16
PC2086 S/D/30 Keyboard Chassis Schematic Diagram	17
PC2086 S/D/30 Power Supply Chassis Schematic Diagram	18
PC12 MD/O MONITOR	19
PC12 MD/O Alignment Instructions	19
PC12 MD/O Electrical Parts List	20
PC12 MD/O Chassis Schematic Diagram	21
PC12 MD/O Chassis Schematic Diagram	22
PC12 MD/O Cabinet Exploded View & Parts List	23
PC12 MD/O Monitor/CRT/LED PCB	24
PC12 HRCD/O MONITOR	25
PC12 HRCD/O Alignment Instructions	25
PC12 HRCD/O Electrical Parts List	26
PC12 HRCD/O Monitor PCB, CRT/LED PCB	27
PC12 HRCD/O Chassis Schematic Diagram	28
PC12 HRCD/O Chassis Schematic Diagram	29
PC12 HRCD/O Chassis Schematic Diagram	30
PC12 HRCD/O Cabinet Exploded View & Parts List	31
Notes	32
PC14 CD/O MONITOR	33
PC14 CD/O Alignment Instructions	33
PC14 CD/O Electrical Parts List	34
PC14 CD/O Monitor PCB	35
PC14 CD/O Chassis Schematic Diagram	36
PC14 CD/O Chassis Schematic Diagram	37
PC14 CD/O Chassis Schematic Diagram	38
PC14 CD/O Cabinet Exploded View & Parts List	39
Notes	40
PC14 HRCD/O MONITOR	41
PC14 HRCD/O Alignment Instructions	41
PC14 HRCD/O Electrical Parts List	42
PC14 HRCD/O Monitor PCB, CRT/LED PCB	43
PC14 HRCD/O Chassis Schematic Diagram	44
PC14 HRCD/O Chassis Schematic Diagram	45
PC14 HRCD/O Chassis Schematic Diagram	46
PC14 HRCD/O Cabinet Exploded View & Parts List	47
Notes	48
PC12 MD/D MONITOR	49
PC12 MD/D Electrical Parts List	50
PC12 MD/D Monitor PCB, Supply PCB	51
PC12 MD/D Wiring Diagram	52
PC12 MD/D Monitor PCB	53
PC12 MD/D Cabinet Exploded View & Parts List	54
PC12 HRCD/D MONITOR	55
PC12 HRCD/D Electrical Parts List	56
PC12 HRCD/D Wiring Diagram	57
PC12 HRCD/D CRT/Monitor/Power Supply PCB's	58
PC12 HRCD/D Schematic Diagram	59
PC12 HRCD/D Cabinet Exploded View & Parts List	60

TECHNICAL SPECIFICATION

SYSTEM UNIT	
Processor	8086
Clock Speed	8MHz
Full Width Main Memory	16 bit
Maths Co-Processor Socket	8087
RAM (Parity Checked)	640K
Expansion Slots	3 x 8 bits plus HD
Asychronous Bus Operation	•
Hard Disk Option with 1:1 Interleave	30MB
Floppy Drives	720K
External 5¼", 3½" Disk Drive & Tape Streamer Connector	•
Hercules, CGA, EGA & VGA Compatible	•
Bi-Directional Parallel Printer Port	•
Serial RS232 Port	•
Battery Backed Clock & Configuration RAM	•
Mouse - with Microsoft Compatible .COM & .DRV	•
101/102 'AT' type Keyboard	•
Security Lock for Keyboard	•
Volume Control for Speaker	•
Novell Netware Compatible	Workstation
Microsoft	
☐ MS-DOS	3.3
☐ Windows	2.03
☐ GW Basic	•
Dimensions System Unit	
Width	365mm
Height	140mm
Depth	395mm
Keyboard	
Width	475mm
Height	35mm
Depth	200mm

MONITORS	**PC12MD**	**PC14CD**	**PC12HRCD**	**PC14HRCD**
Screen Size (Diagonal)	12" (30.5cm)	14" (35.6cm)	12" (30.5cm)	14" (35.6cm)
VGA	•	•	•	•
Analogue Compatible	•	•	•	•
Resolution Dot Pitch	—	0.42	0.28	0.29
Resolution 640 x 480	•	•	•	•
Tilt and Swivel Base	•	•	•	•
Antiglare	•	•	•	•
Up to 256 Colours on Screen	—	•	•	•
Automatic Conversion to 64 Shades of Grey	•	—	—	—

SAFETY TEST

All monitors are tested to the following specifications.

1. **Flash Test:** Test at 1.5kV RMS / 3 sec between the live and neutral poles of the mains lead and all accessible metal points on the exterior of the set.
2. **Insulation Resistance Test:** Test at 1.5kV RMS / 3 sec between the live and neutral poles of the mains lead and all accessible metal points on the exterior of the set to show a resistance greater than 4Mohms.
3. **Earth Continuity Test:** The resistance of the mains lead shall not exceed 0.5ohms.

PLEASE NOTE: When any work is completed on this unit, correct safety tests must be carried out to ensure continued electrical safety.

PLEASE NOTE: All parts shown with the part number prefix ⚠ are Safety Items and must be replaced with similar items having an identical safety specification.

All those items may be purchased direct from AMSTRAD plc.

In keeping with our policy of continually improving our service and the technical quality of our products, we reserve the right to change

PC2086 S/D/30 ALI

Step	FUNCTION	SIGNAL IN	SIGNAL OI
1.	+5V D.C. Adjustment.	—	—
2.	+12V D.C. Adjustment.	—	—
3.	-5V D.C. Adjustment.	—	—
4.	-12V D.C. Adjustment.	—	—
5.	+12V D.C. Protect Adjustment	—	Oscilloscope.
6.	R.T.C. Adjustment.		

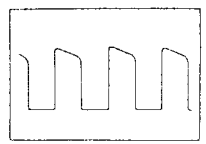


Fig. 1

POWER PCB

MAIN PCB

ENGINEERS

T LEVEL REPAIRS ARE TO BE CARRIED OUT
ST IF THE FAULT IS CONFIRMED REPLACE

ED SPARES OUTLET.
DRIVES AND HARD DISC DRIVES.
NY PARTS OR COMPONENTS WITHIN THESE
OR PART WARRANTY ON THE ITEM.
FROM OUR AUTHORISED SPARES OUTLET.
NT LEVEL REPAIRS.
IED HEREIN MAY BE MADE AVAILABLE UPON
SERVICE DEPARTMENT.

PC2086 S/D/30 ALIGNMENT INSTRUCTIONS

Step	FUNCTION	SIGNAL IN	SIGNAL OUT	METHOD	REMARKS
1.	+5V D.C. Adjustment.	—	—	Connect D.V.M. to Test Point A & Ground. Adjust VR604 to read 5.15V ±0.1V D.C.	Refer to Fig. A.
2.	+12V D.C. Adjustment.	—	—	Connect D.V.M. to Test Point B & Ground. Adjust VR603 to read 12.15V ±0.2V D.C.	Refer to Fig. A.
3.	-5V D.C. Adjustment.	—	—	Connect D.V.M. to Test Point C & Ground. Adjust VR601 to read -5V ±0.1V D.C.	Refer to Fig. A.
4.	-12V D.C. Adjustment.	—	—	Connect D.V.M. to Test Point D & Ground. Adjust VR602 to read -12.00V ±0.2V D.C.	Refer to Fig. A.
5.	+12V D.C. Protect Adjustment	—	Oscilloscope.	Turn VR606 fully clockwise. Short Pin 1 & 3 of Q605 to prevent protection turn on. Connect A O'scope to this shorting link. Adjust VR606 to get the waveform. Disconnect the shorting link.	Refer to Fig. 1.
6.	R.T.C. Adjustment.			Connect Odometer to Pin 21 of IC134. Set the odometer to 0.2 sec/day setting and read "0.00" using TC101.	

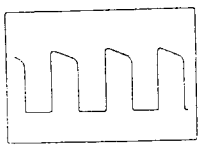
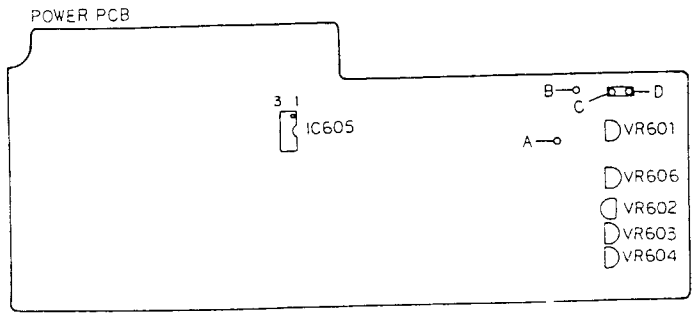
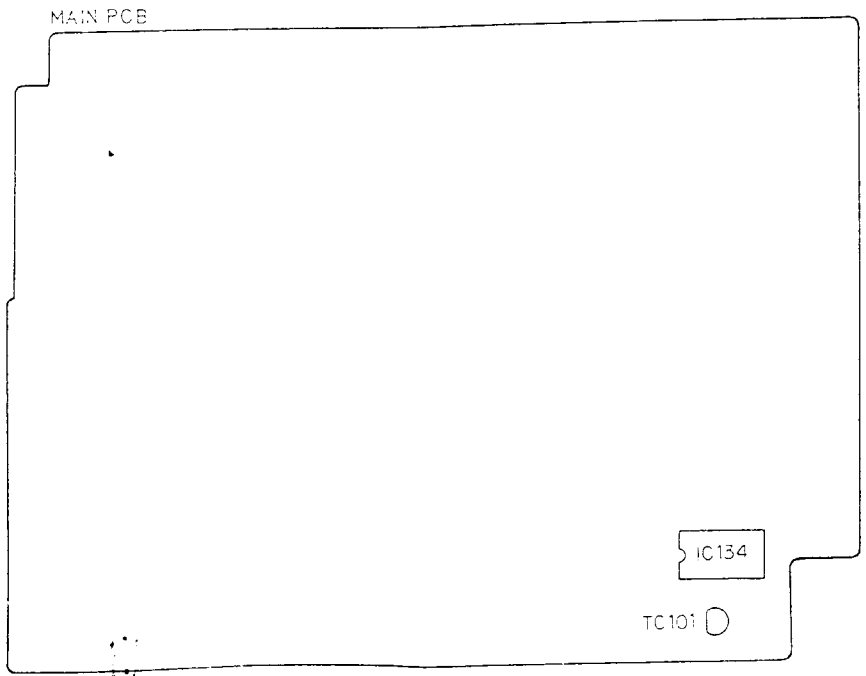


Fig. 1





NOTES TO ENGINEERS

PLEASE BE ADVISED THAT NO COMPONENT LEVEL REPAIRS ARE TO BE CARRIED OUT ON MAIN CPU PCB. AFTER DIAGNOSIS TEST IF THE FAULT IS CONFIRMED REPLACE CPU PCB.
THIS IS OBTAINABLE FROM OUR AUTHORISED SPARES OUTLET.
THE SAME APPLIES TO THE FLOPPY DISC DRIVES AND HARD DISC DRIVES.
ANY ATTEMPTS TO REPAIR OR REPLACE ANY PARTS OR COMPONENTS WITHIN THESE UNITS WILL INVALIDATE ANY WARRANTY OR PART WARRANTY ON THE ITEM.
REPLACEMENT ITEMS WILL BE AVAILABLE FROM OUR AUTHORISED SPARES OUTLET.
MONITORS ARE SUBJECTED TO COMPONENT LEVEL REPAIRS.
ANY INFORMATIONM WHICH IS NOT PUBLISHED HEREIN MAY BE MADE AVAILABLE UPON SPECIAL REQUEST TO AMSTRAD SPARES & SERVICE DEPARTMENT.

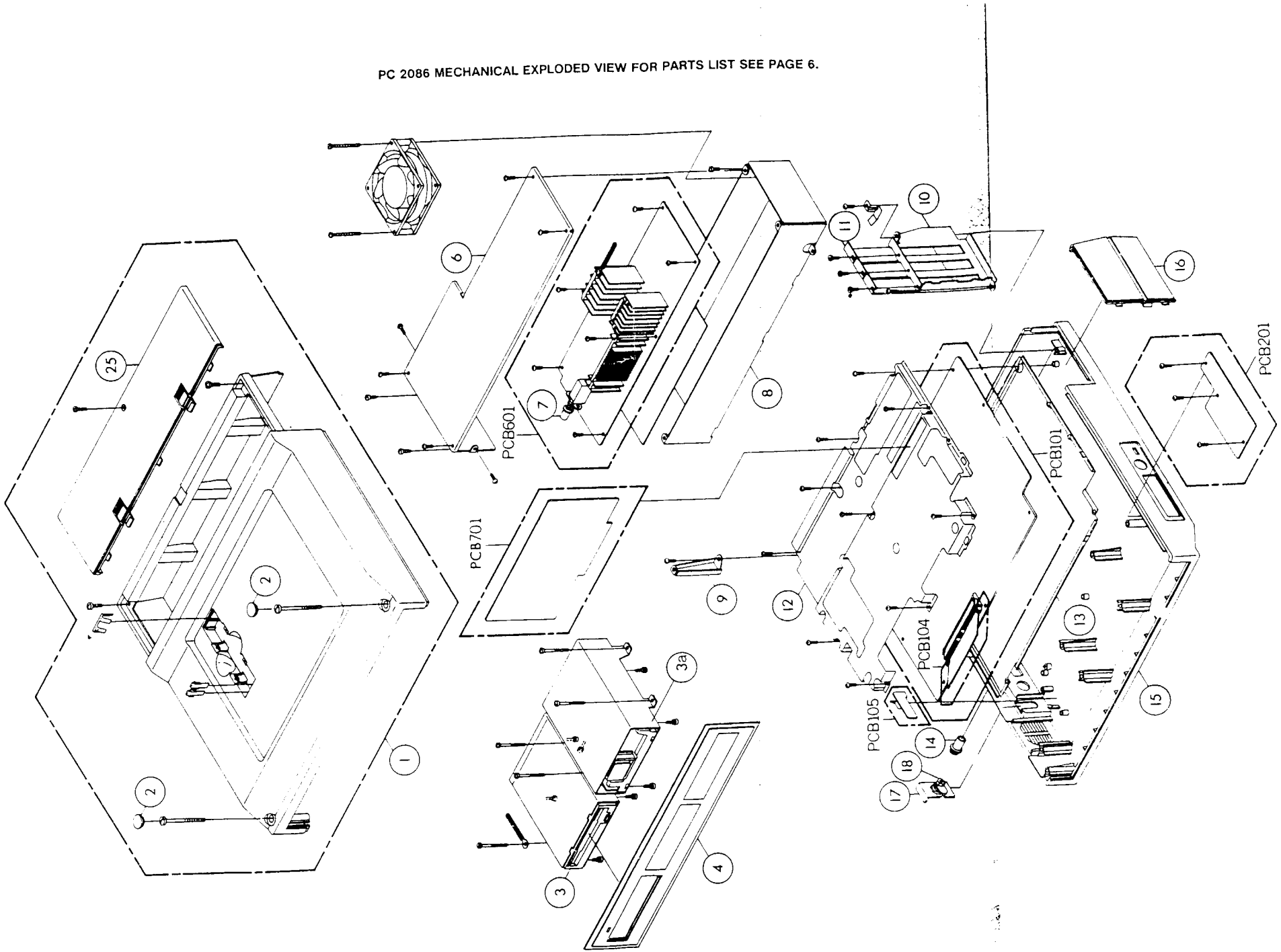
Circ. Ref.	Description	Part No.
I.C.s		
IC001-009	IC KM41256-15	171400
IC101	IC MC1488P	171378
IC102, 103	IC MC1489AP	171379
IC104	IC HD7406P	171380
IC105, 123	IC SN74LS245N	171393
IC106	IC INS8250N	171381
IC107	IC SN74LS240N	171382
IC108, 115, 121, 124	IC SN74LS244N	171383
IC109	IC T4750	40111
IC110	IC SN74LS125AN	171385
IC112	IC Z765APS	40018
IC116	IC SN74LS14N	171389
IC117	IC TC74HC240P	171390
IC118	IC AMS40040	171391
IC120	IC AMD8086-2	171392
IC122	IC SN74LS373N	170108
IC125	IC AMS40039	171577
IC126	IC AMS40127	40127
IC128	IC TC74HCUO4P	40008/A
IC129	IC AMS40179-2	176061
IC132	IC AMS40180-2	176062
IC134	IC MC146818P	171399
IC135	IC MSC2304-12YS9	176064
IC153-158	IC KM41464-15	173001
IC159	IC SED9420CAC	171034
IC160	IC PUGA1A	176071
IC161-168	IC TMS4464-12	176072
IC169	IC TMSG171P-35	176074
IC171	IC AMS40186-1	176075
IC172	IC LM339	176076
IC401	IC LA4140	170111
IC601	IC STK7356	171478
IC602	IC BA6993	171480
IC603	IC LA6324	170112
IC604	IC BA707	171481
IC801	IC AMS40178	176083
IC802	IC TC74HC14AP	176084
IC803	IC SN74LS175N	176085
Transistors		
Q101, 102, 105, 300, 301, 602, 610-612, 616	TR KTC1815Y	170447
Q103, 104, 106, 603, 606, 607, 613, 617	TR KTA1015Y	170453
Q601	TR 2SC3114T-T	176086
Q604, 605	TR TLP732	176087
Q608, 609	TR 2SD1666	171045
Q614	TR 2SB1134R	171486
Q615	TR 2SD1207-AE	170451
Diodes		
D101-105, 501, 502, 608, 609, 614, 616, 618, 619, 620, 801	D 1SS132T-77	171489
D106, 107	DZ GZA4.7 XBT	176026
D107	DZ GZA7.5 YBT	176027
D503, 504	LED SLP-255B	176028
D601	DZ GZB18B	171495
D602	DZ GZB9.1B	171493
D603	D DFC15TL-KC5	171491
D604-606	D DFH10TG-KB4	171492
D607	DZ GZA18 YBT	171624
D610	D DFD05TG-BT	176035
D611	D SCHOTTKY BAR F5KQ10	171496
D612	D SCHOTTKY BAR F10P04Q	171497
D614	DZ GZA5.1 YBT	171498
D615	DZ GZA5.6 YBT	171499
D621-624	D 20E10FA13	170848

Circ. Ref.	Description	Part No.
Coils		
L101, 102	Coil LAL03TA2R2M 2.2uH	175024
L300	Coil LAL03TA5R6K 5.6mH	176092
L601	Coil 02DF000003	176093
L602	Coil PLA1022C Line Filter AC	171502
T601	Transformer Switching 8142021	176095
Jacks		
J801	Jack DIN	176098
Switches		
SW101	Slide Switch	176099
SW102	Switch Push Key Lock ESE-153A	176100
SW201	Slide Switch Drive Select SSD-22DP	176101
SW601	Push Switch Power On/Off	171511
SW801	Switch Keyboard	176103
Variable Resistors		
VR401	Vol. Control 20k	176104
VR601	VRSF 4.7kΩ	176105
VR602	VRSF 2.2kΩ	176106
VR603, 604, 606	VRSF 1IΩ	176107
P.C.B.s		
PCB101	CPU PCB MC0065	176108
PCB102	LED PCB MS0119A	176109
PCB104	Ram Expansion PCB MC0067	176110
PCB105	Switch KBD PCB MS0126	176111
PCB201	EXT FDD Connection PCB MSO117	176112
PCB601	Power Supply PCB MSO116	176066
PCB801	Keyboard Controller PCB MK0005	176113
	Memory Module PCB	176110
Miscellaneous		
B601-604	Ferrite Beads	176114
CD801	Cord DIN KBD	176113
F601	Fuse 3.15A(T) 250V	171531
FDD201	Micro Floppy Drive A23M	176153
ICP101	IC Protector PRF.315.F003	171483
ICP601	ICP-N50T104	171547
JP101	Jack Serial Port	176157
JD102	Jack Parallel Port	175131
JD104	Jack Mouse	176161
JD301	Jack Video Output	176508
JD105	Jack KBD Connector	176163
M601	Fan Motor	171666
NR101	R Network 4.7kΩ X7	171667
NR102	R Network 1kΩ X5	176166
NR104	R Network 2.2kΩ X8	171670
NR105, 106	R Network 4.7kΩ X8	176168
NR107, 108	R Network 68Ω X7	176169
NR801	R Network 1kΩ X8	171370
SP401	Speaker	176171
TC101	Trimmer 200pF	176172
TH601	Thermister	176173
X101	Crystal 1.8432MHz	176174
X103	Crystal 32.768kHz	171375
X104	Crystal 24.00MHz	171376
X105	Crystal 28.63636MHz	176177
X106	Crystal 16.00MHz	176178
X301	Crystal 28.322MHz	176179
X302	Crystal 25.175MHz	176180
X303	Crystal 36MHz	176181
X701	Crystal 15.00MHz	171377
X601	Crystal 6.0MHz	176034
	Keyboard Lock Key	
	When ordering quote key no.	
	Mouse	171664

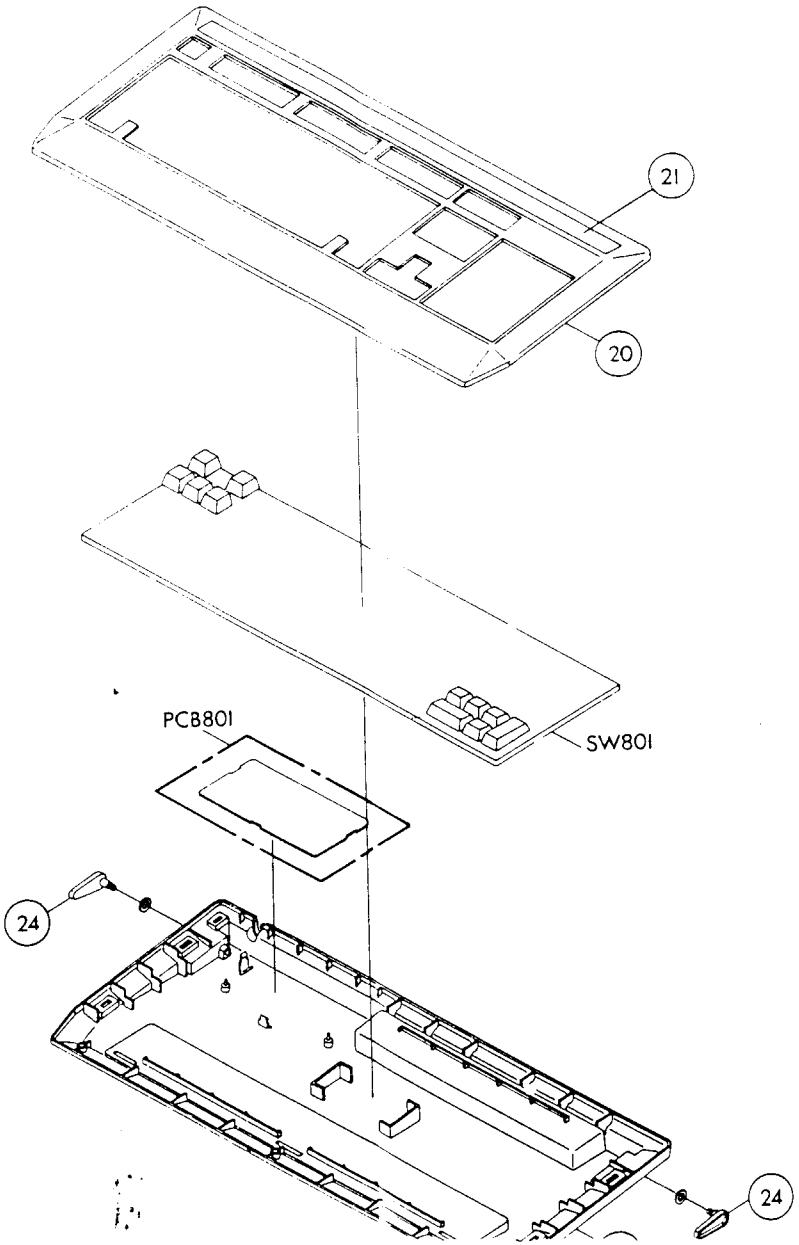
Description	Ref. No.	Part No.
Resistors All resistors are 1/6W unless otherwise stated		
22Ω	R320-322	152156
33Ω	R124, 156-169, 316, 317, 323-336	152158
68Ω	R172, 173, 274	152162
100Ω	R120-123, 128, 132, 627, 640, 649, 652, 801, 802	152166
120Ω	R301, 302	152167
150Ω	R303-305	152168
220Ω	R501, 625	152170
270Ω	R805, 806, 808	152171
330Ω	R666	152172
340Ω	R312	176509
470Ω	R125, 300, 667	152174
560Ω	R606, 628, 658	152175
680Ω	R279, 401, 626, 653-655	152176
820Ω	R647, 680	152178
1kΩ	R603, 611, 615, 618, 621, 634-636, 648, 651, 669	152179
1.5kΩ	R174, 283, 605, 620	152181
2.2kΩ	R108, 110, 111, 133, 134, 136, 137, 280, 602, 622, 623, 631, 639, 650, 803, 804	152183
3.3kΩ	R633	152185
3.9kΩ	R632	152187
4.7kΩ	R101, 117, 118, 139, 307, 311, 313-315, 341, 656, 661, 810	152188
5.6kΩ	R638	152189
6.8kΩ	R284	152190
8.2kΩ	R668	152192
10kΩ	R129, 138, 140, 142, 150, 170, 171, 177-180, 272, 276, 278, 286-288, 308, 337-340, 657, 660, 811, 812	152194
12kΩ	R109, 116	152195
15kΩ	R115, 154, 679, 681	152196
22kΩ	R195	152198
33kΩ	R282, 608, 807	152200
47kΩ	R619, 809	152203
68kΩ	R281, 607	152205
82kΩ	R285	152207
100kΩ	R175	152209
150kΩ	R149	152211
270kΩ	R135	152214
1MΩ	R107, 141, 155, 256	152223
2.2MΩ	R143	152227
10MΩ	R148	176280
1Ω/½W	R630	175062
2.7Ω/½W	R629	176281
560Ω/½W	R659, 675-678	176282
2.2kΩ/½W	R672, 673	176283
3.3kΩ/½W	R617	176284
Metal Film Resistors		
100Ω/¼W	R146, 147	176285
300Ω/¼W	R151, 152	176286
430Ω/¼W	R144	176287
560Ω/¼W	R145	176288
1.8kΩ/¼W	R176	176289
4.7kΩ/¼W	R310	176290
27kΩ/¼W	R188	176291
Metal Oxide Resistors		
0.22Ω/½W	R641, 642	171625
0.33Ω/2W	R604	171072
33Ω/2W	R624	176292
56Ω/1W	R637	171629
100Ω/2W	R612	171631
1kΩ/1W	R610	170406
2.2kΩ/1W	R613	171632
22kΩ/3W	R609	171636

Description	Ref. No.	Part No.
Fuse Resistors		
5.6Ω/¼W	R181	176293
10Ω/¼W	R616	809256
Cement Resistors		
5.6Ω/5W	R601	1422138
Ceramic Capacitors		
8pF NPO	C119, 122, 225	176294
18pF NPO	C117, 121, 223	176295
33pF NPO	C116	176296
39pF NPO	C106	176297
47pF NPO	C805, 806	176298
47pF	C131, 132	176299
68pF	C133	150516
82pF NPO	C107	176300
100pF NPO	C115	176301
100pF	C807	24016
220pF	C101-105, 128, 134, 410	400107
270pF	C305, 306	150501
470pF	C408	176302
680pF	C636	176303
2200pF	C645	176304
0.001uF	C411	24027
0.0015uF/500V	C620	176305
0.0022uF/2kV	C604, 642-644	1400223
0.0056uF/500V	C612, 617	171646
0.1uF/12V	C001-009, 113, 123, 301, 503-506, 526, 675, 802, 803, 809, 810	176306
0.1uF/16V	C501, 502	176307
Polystyrene Capacitors		
0.001uF	C229	176308
0.01uF	C118, 120, 226, 228, 406	176309
0.015uF	C607, 625, 626	176310
0.033uF	C603	176311
0.047uF	C227, 307	176312
Electrolytic Capacitors		
0.1uF/50V	C637	150908
0.22uF/50V	C605	152546
0.33uF/50V	C624	176313
1uF/50V	C401, 405, 602	20062
4.7uF/100V	C606	175116
10uF/16V	C629, 630	20148
10uF/50V	C580-582, 808	176314
22uF/25V	C409	176315
22uF/50V	C610	176316
25uF/25V	C300	176317
47uF/16V	C402, 404, 615, 801	20027
47uF/25V	C616	151640
100uF/10V/16V	C124, 403, 628	20028
100uF/16V	C631	20028
100uF/25V	C609, 619	176318
100uF/35V	C611	176319
100uF/50V	C608	176320
150uF/400V	C601	171450
330uF/25V	C613	171652
330uF/35V	C627	176321
1000uF/16V	C623	1422158
3300uF/10V/15V	C579	152098
3300uF/16V	C621, 622	171654
3300uF/35V	C618	171655
Metal Polyester Capacitors		
0.1uF/250V AC	C641	171658

PC 2086 MECHANICAL EXPLODED VIEW FOR PARTS LIST SEE PAGE 6.



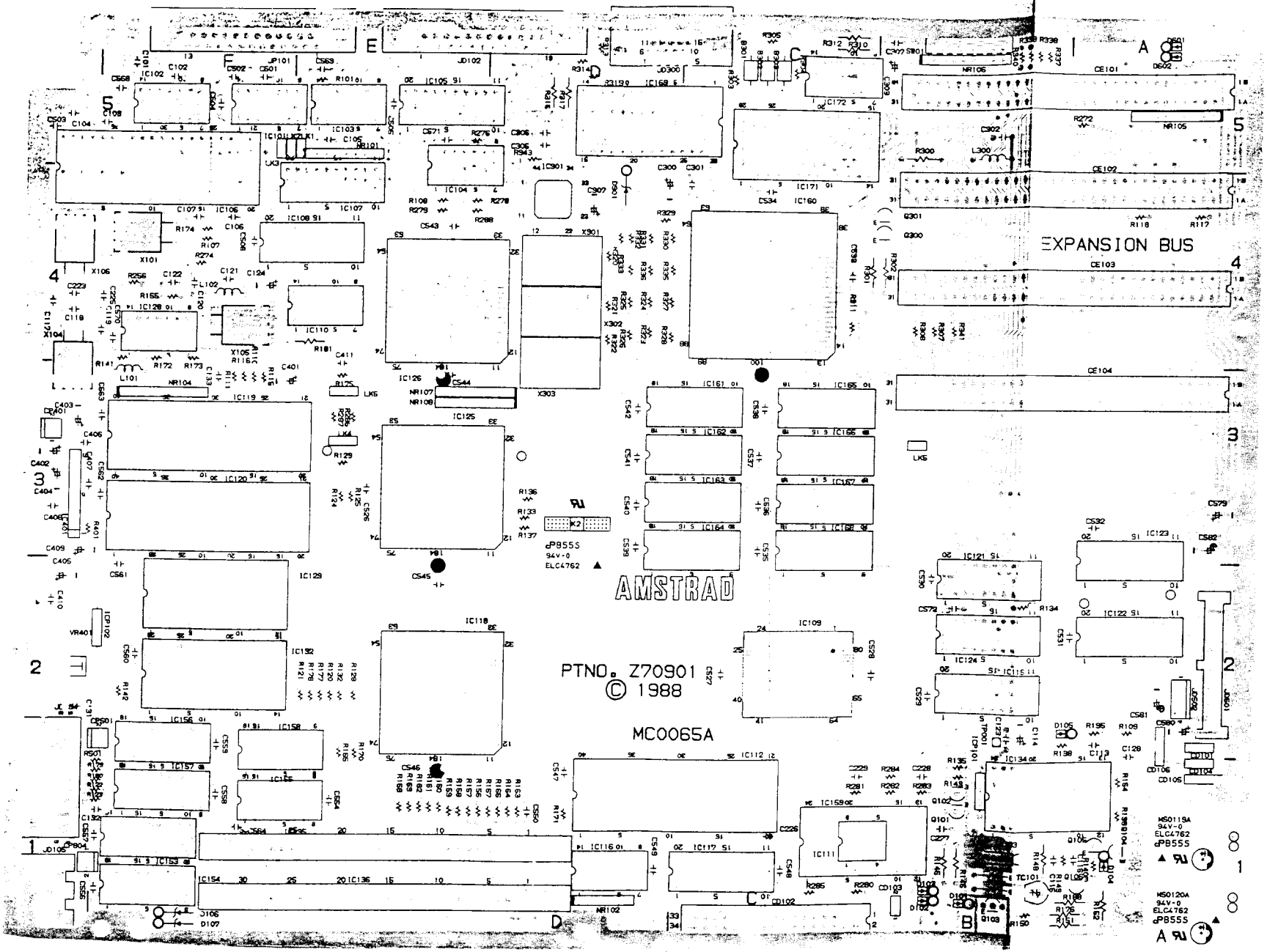
PC 2086 KEYBOARD EXPLODED VIEW



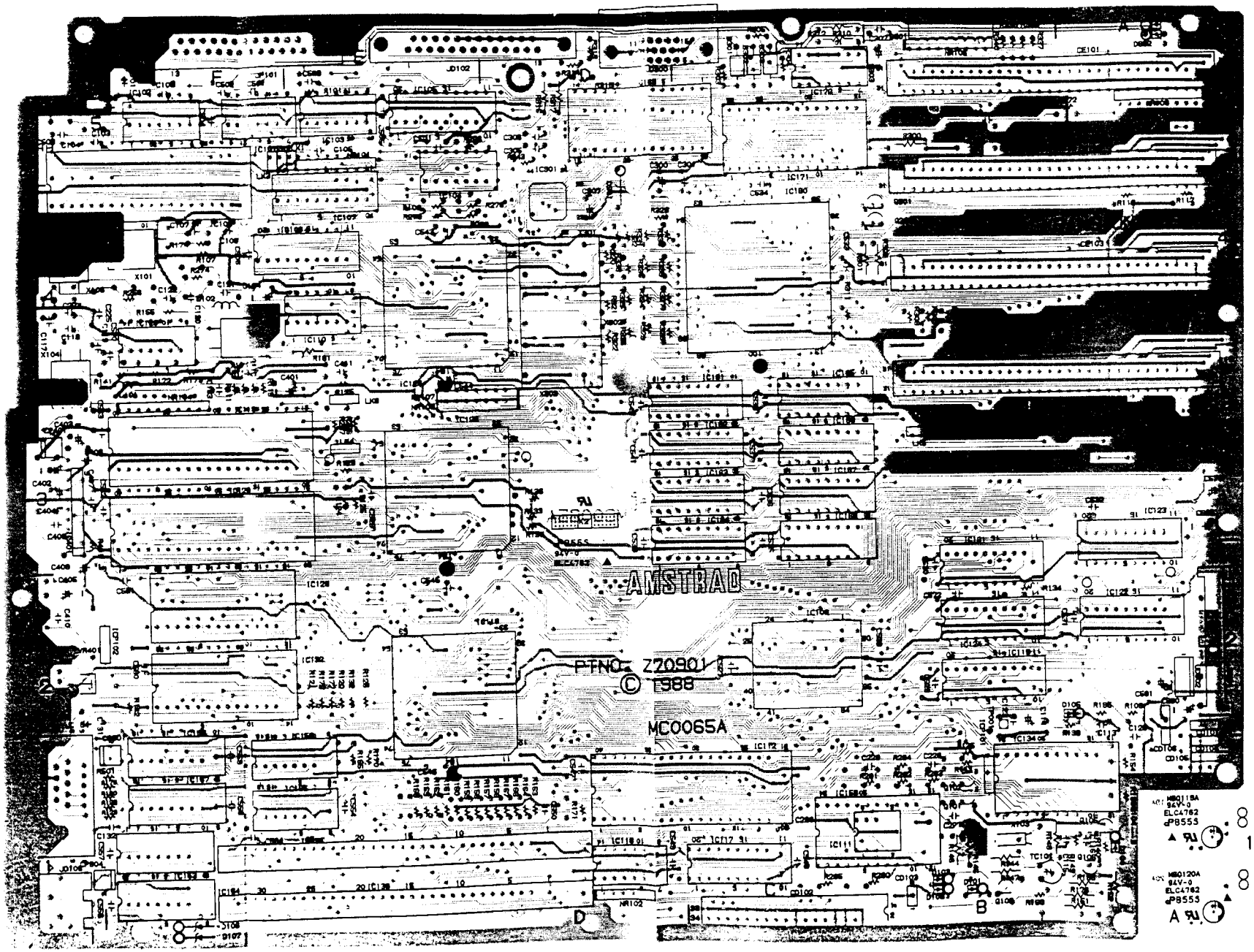
PC 2086 S/D/30 KEYBOARD & EXPLODED VIEW PARTS LIST

Ref. No.	Description	Part No.
1	Cabinet Top Assembly	176001
2	Screw Cap	171363
3	Frame FDD	176004
3A	Frame HDD	176276
4	Cabinet Front	176005
	For S.D.30 Stroke above part no.	
5	Inlay PC 2086/30	176044
	PC 2086/S	176252
	PC 2086/D	176253
6	Plate Shield Top	176006
7	Button Push	171469
8	Plate Shield Bottom	176009
9	Bracket Top Cabinet Fixing	176010
10	Frame Jack	176011
11	Plate Expansion	176012
12	Plate Shield Top	176013
13	Plate Shield Bottom	176014
14	Knob Volume	176015
15	Cabinet Bottom Assy	176016
16	Lid Jack	176017
17	Bracket Key Switch	176020
18	Tubler Key Cam Lock	176021
19	Frame HDD	176022
20	Cabinet Top Key Board	176033
21	Inlay Key Board	176023-U
22	Cabinet Bottom Keyboard	176024
23	Sheet Rating	176024-U
24	Stand Key Board	171358

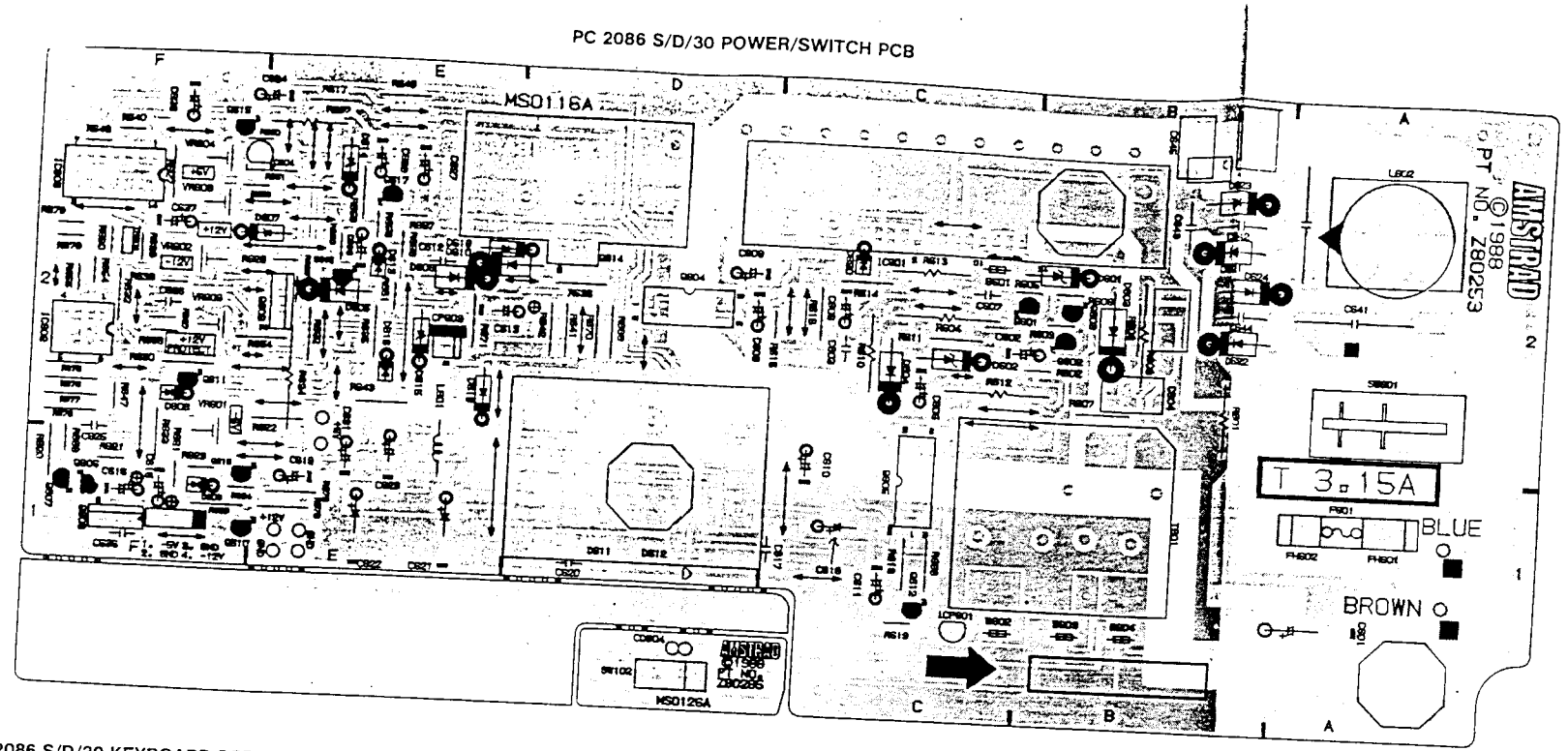
PC 2086 S/D/30 MAIN/LED PCB TOP



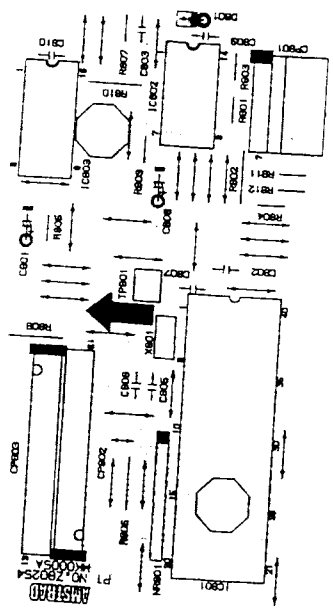
PC 2086 S/D/30 MAIN/LED PCB BOTTOM



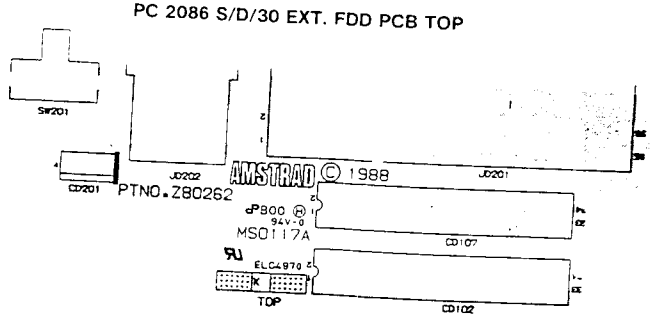
PC 2086 S/D/30 POWER/SWITCH PCB



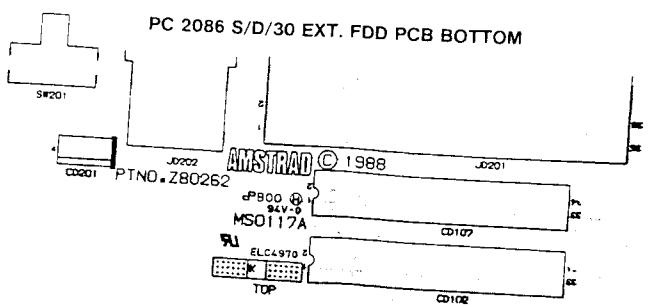
PC 2086 S/D/30 KEYBOARD PCB



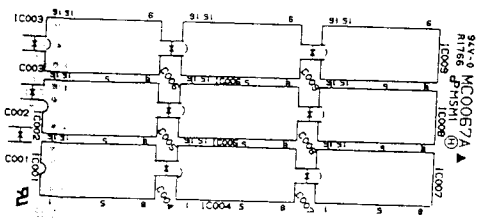
PC 2086 S/D/30 EXT. FDD PCB TOP



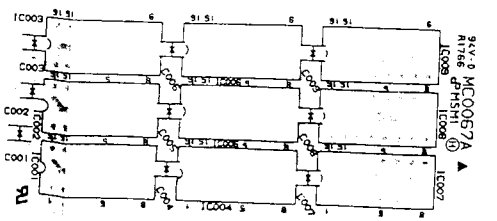
PC 2086 S/D/30 EXT. FDD PCB BOTTOM



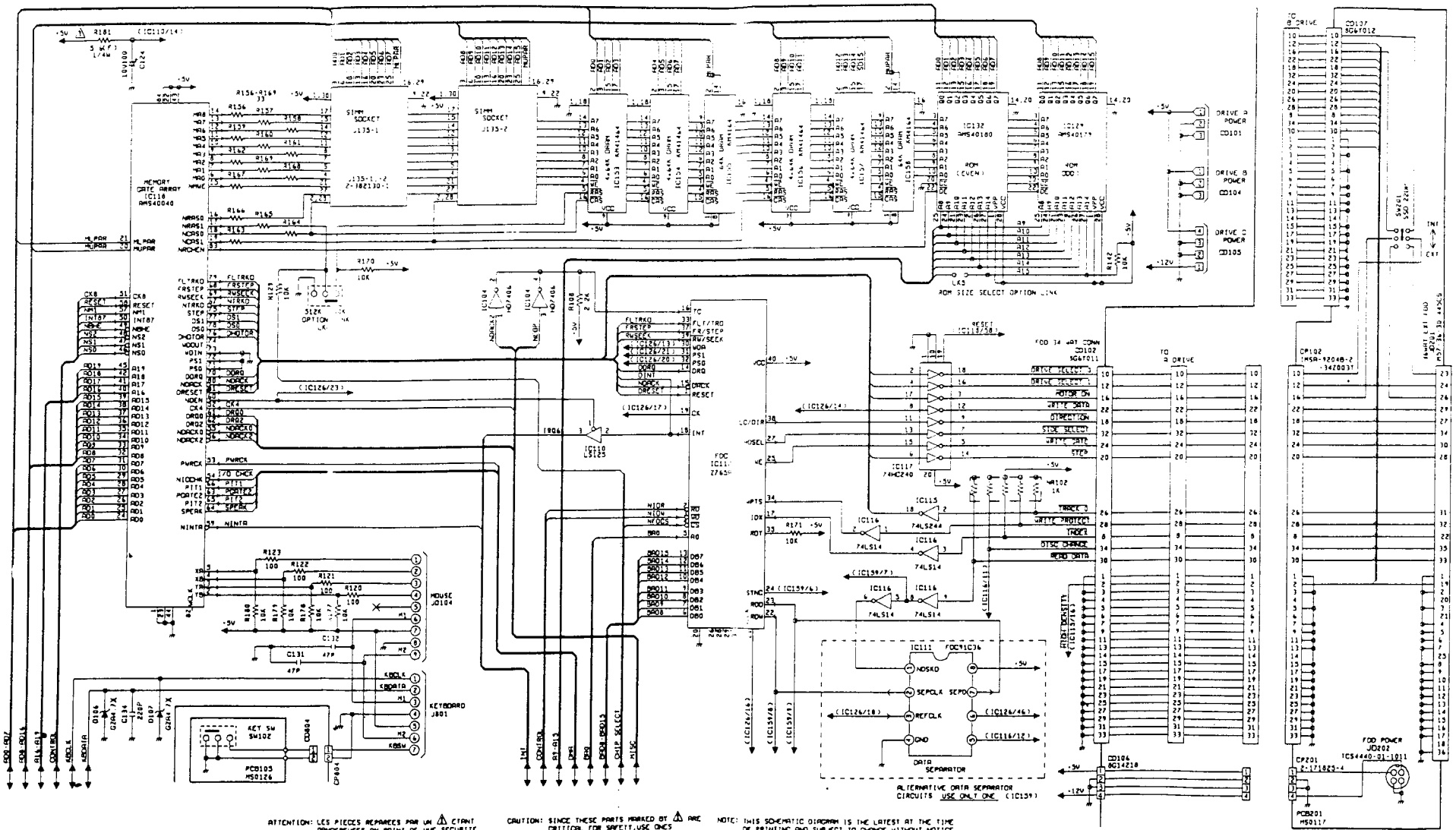
PC 2086 S/D/30 MEMORY PCB TOP



PC 2086 S/D/30 MEMORY PCB BOTTOM



PC 2086 S/D/30 MEMORY 4 DISC CONTROLLER CHASSIS SCHEMATIC DIAGRAM

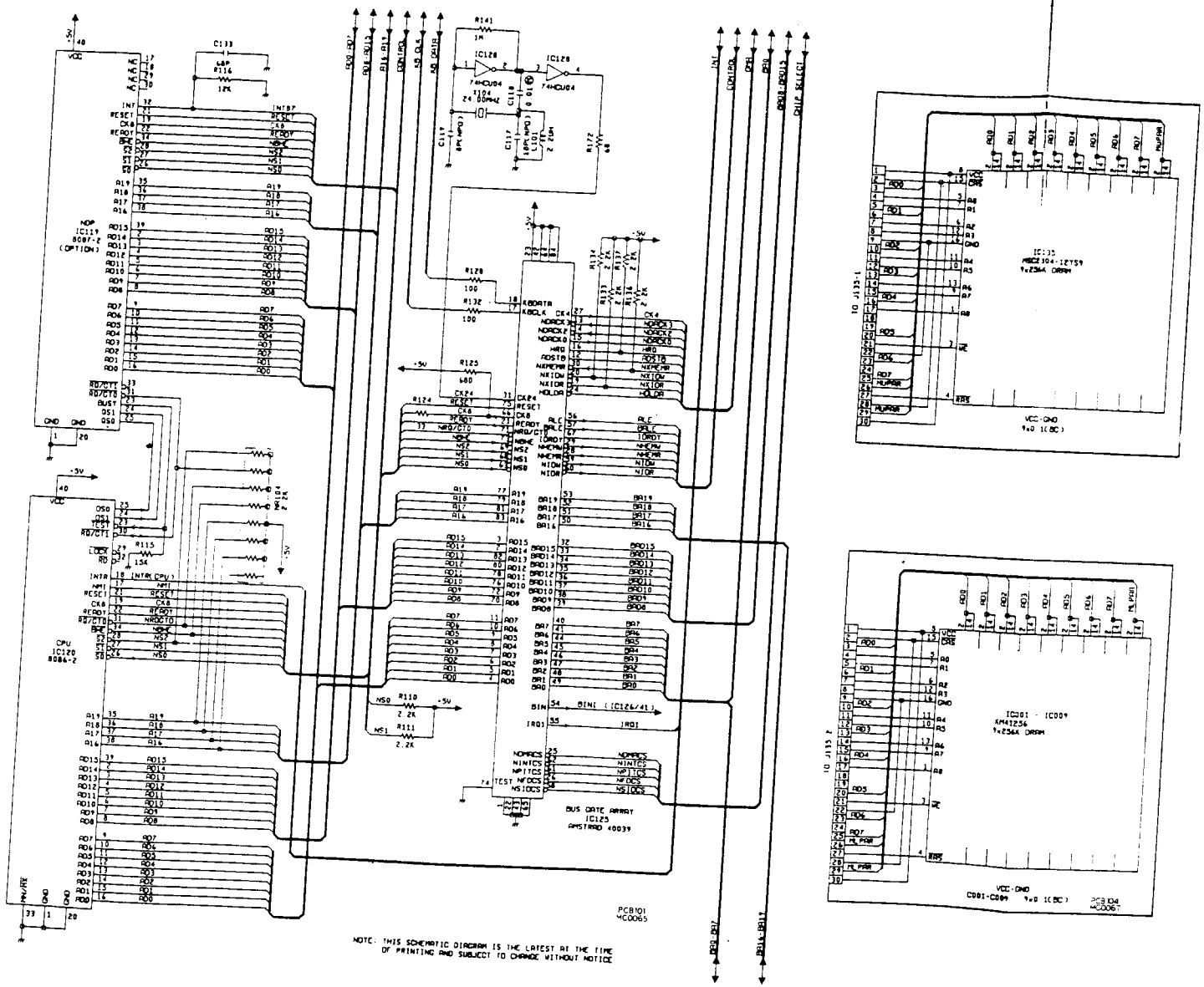


ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AU POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

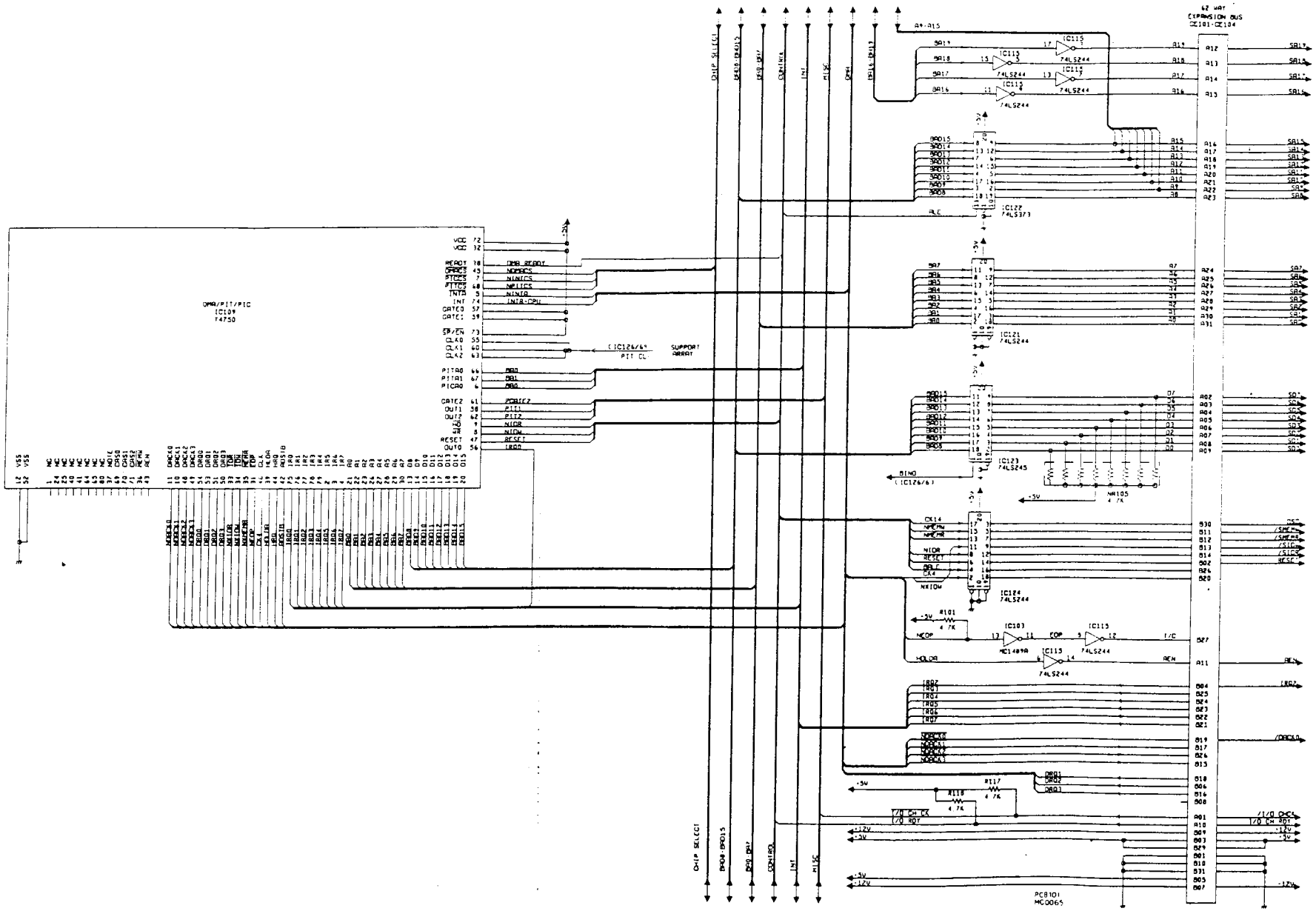
CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

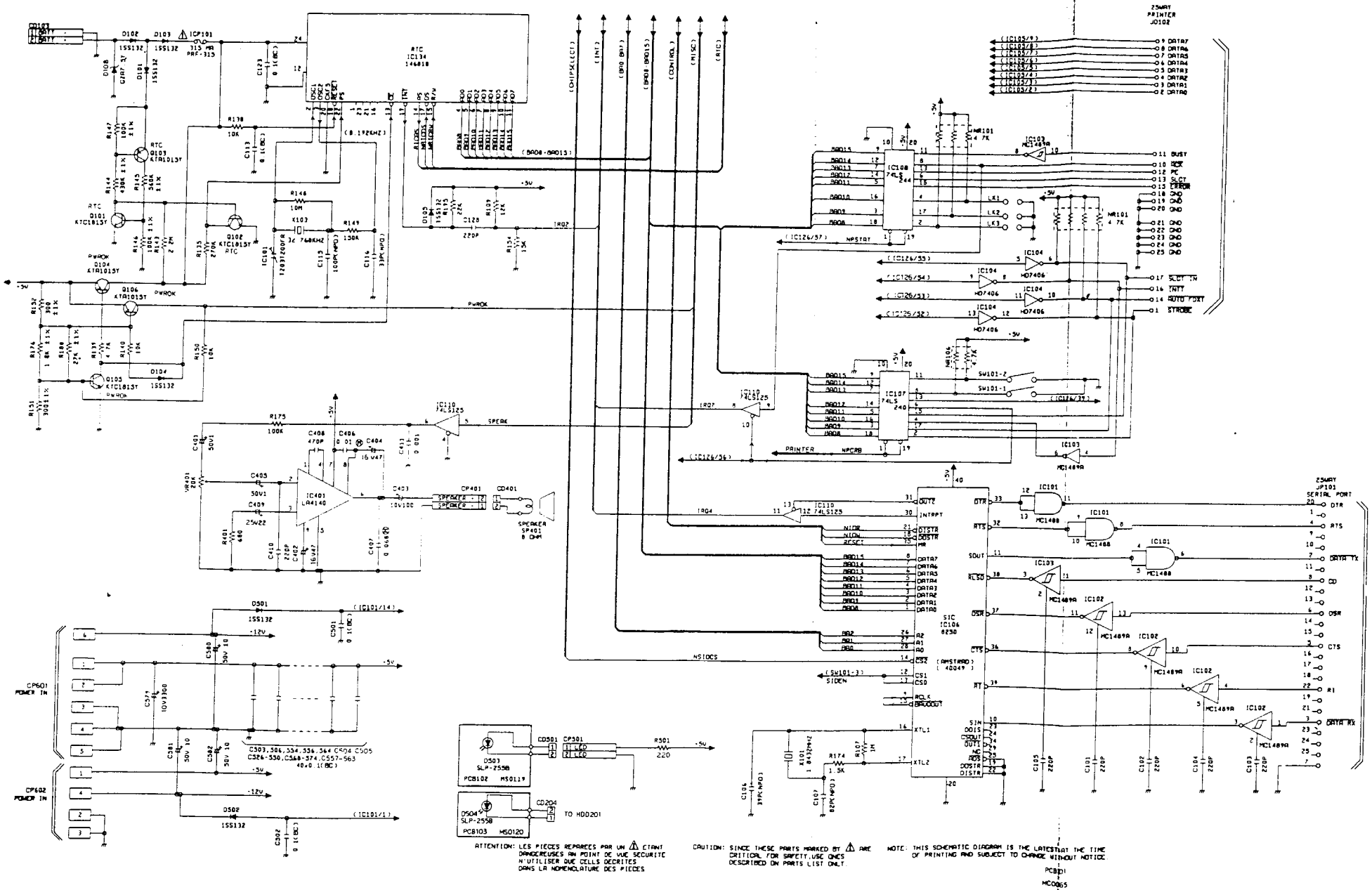
PC 2086 S/D/30 CPU 8 MEMORY CHASSIS SCHEMATIC DIAGRAM



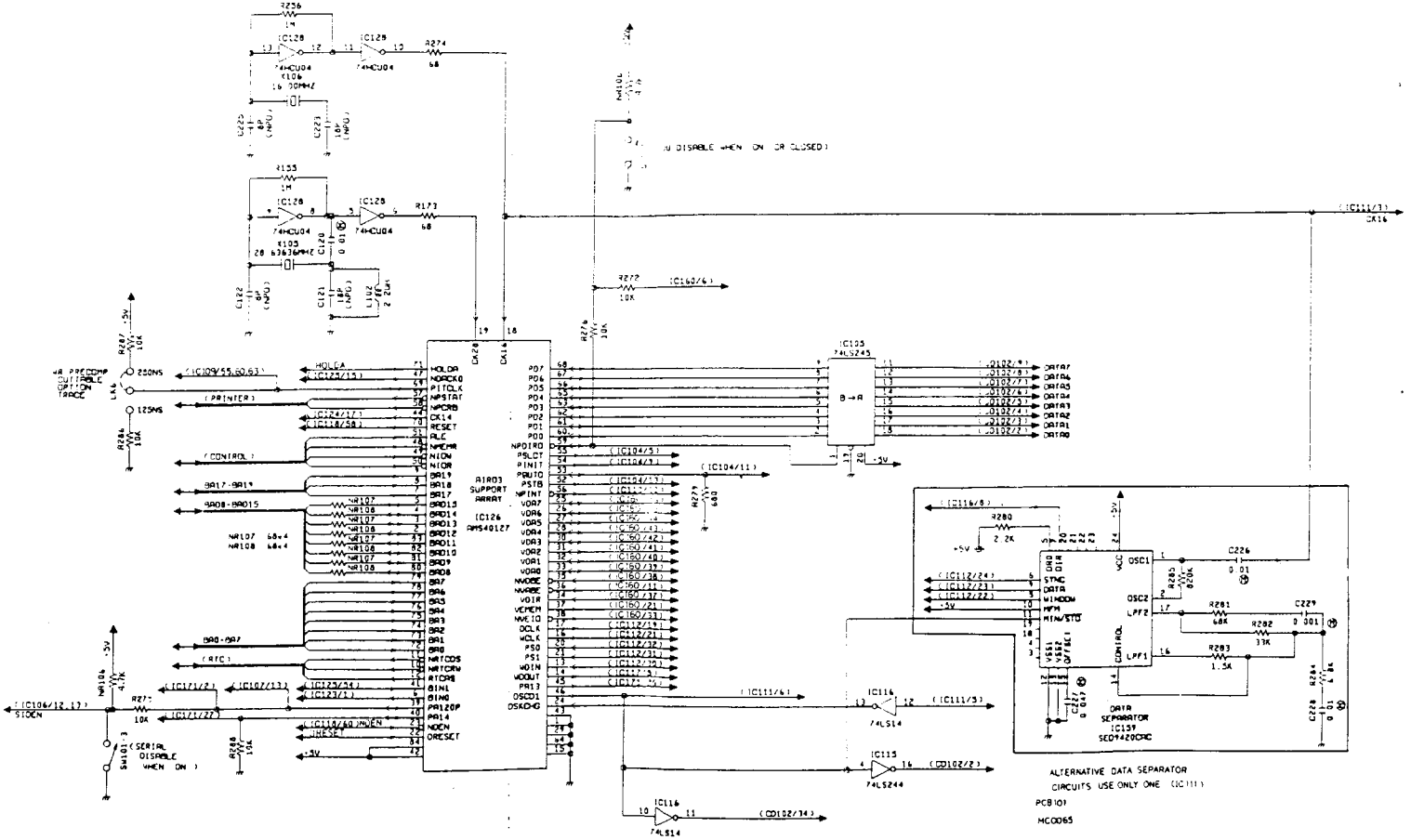
PC 2086 S/D/30EXPANSION BUS CHASSIS SCHEMATIC DIAGRAM



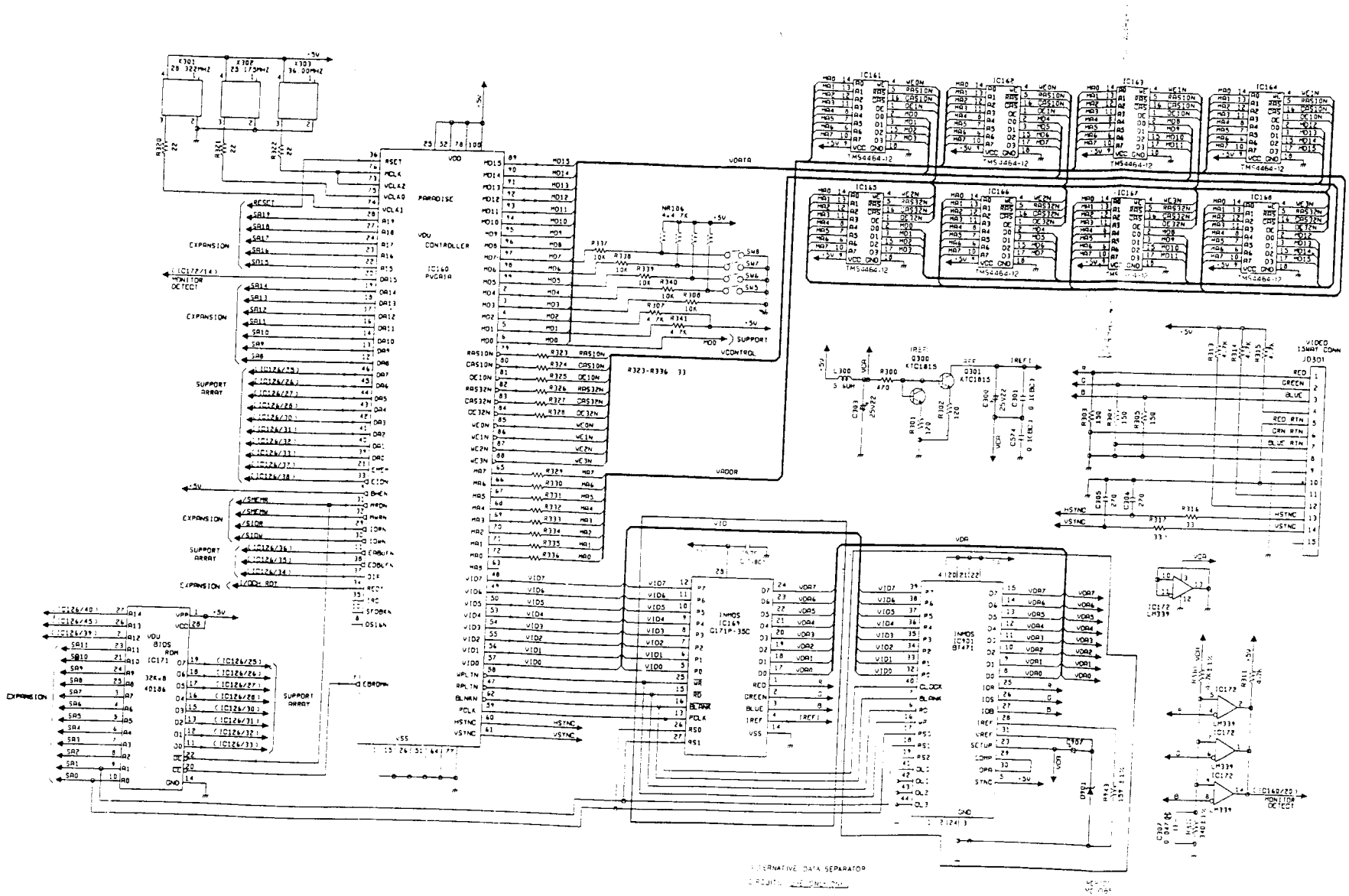
PC 2086 S/D/30 PRINTER PORT CONTROLLER CHASSIS SCHEMATIC DIAGRAM

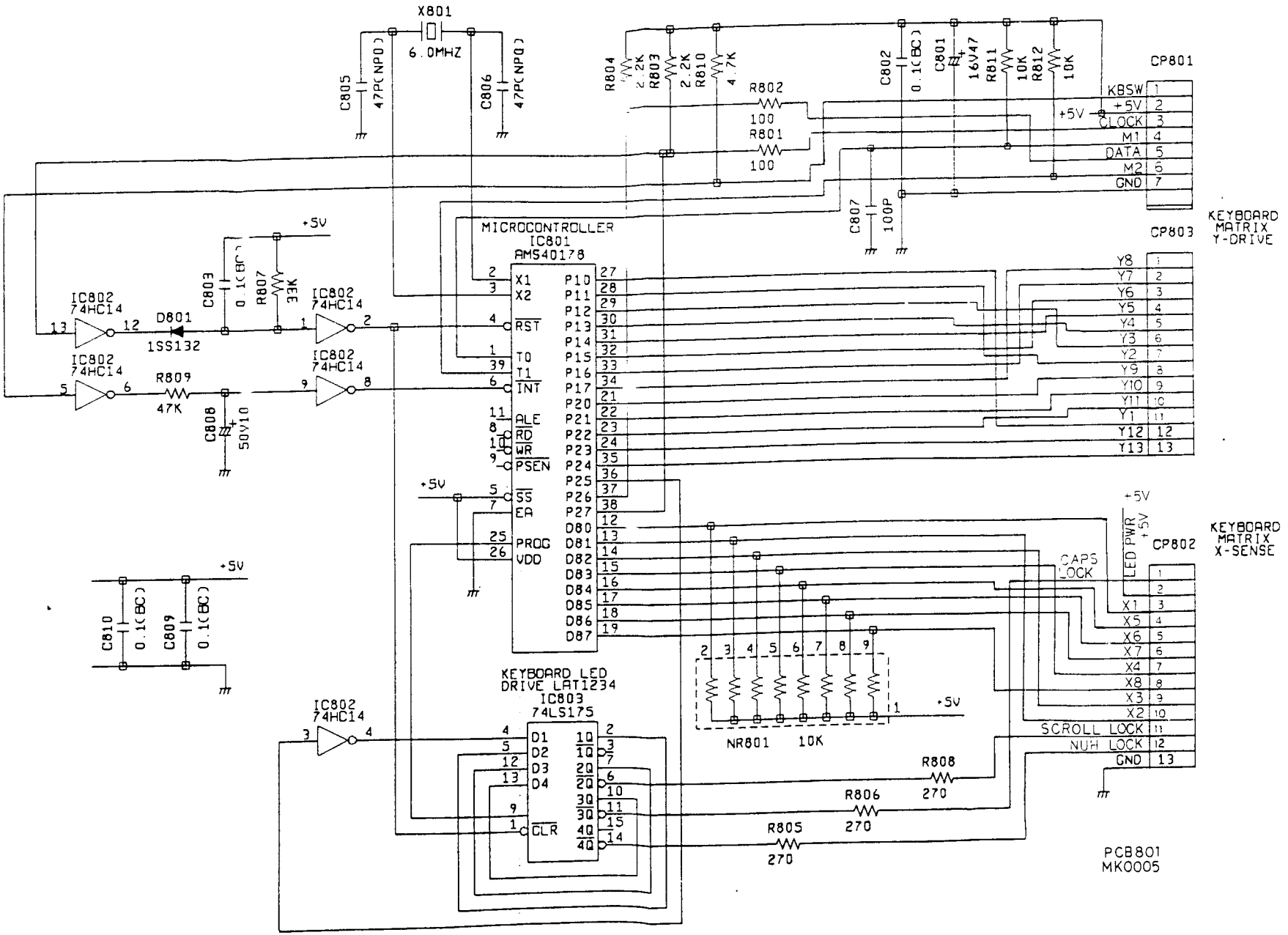


PC 2086 S/D/30 SUPPORT CONTROLLER CHASSIS SCHEMATIC DIAGRAM

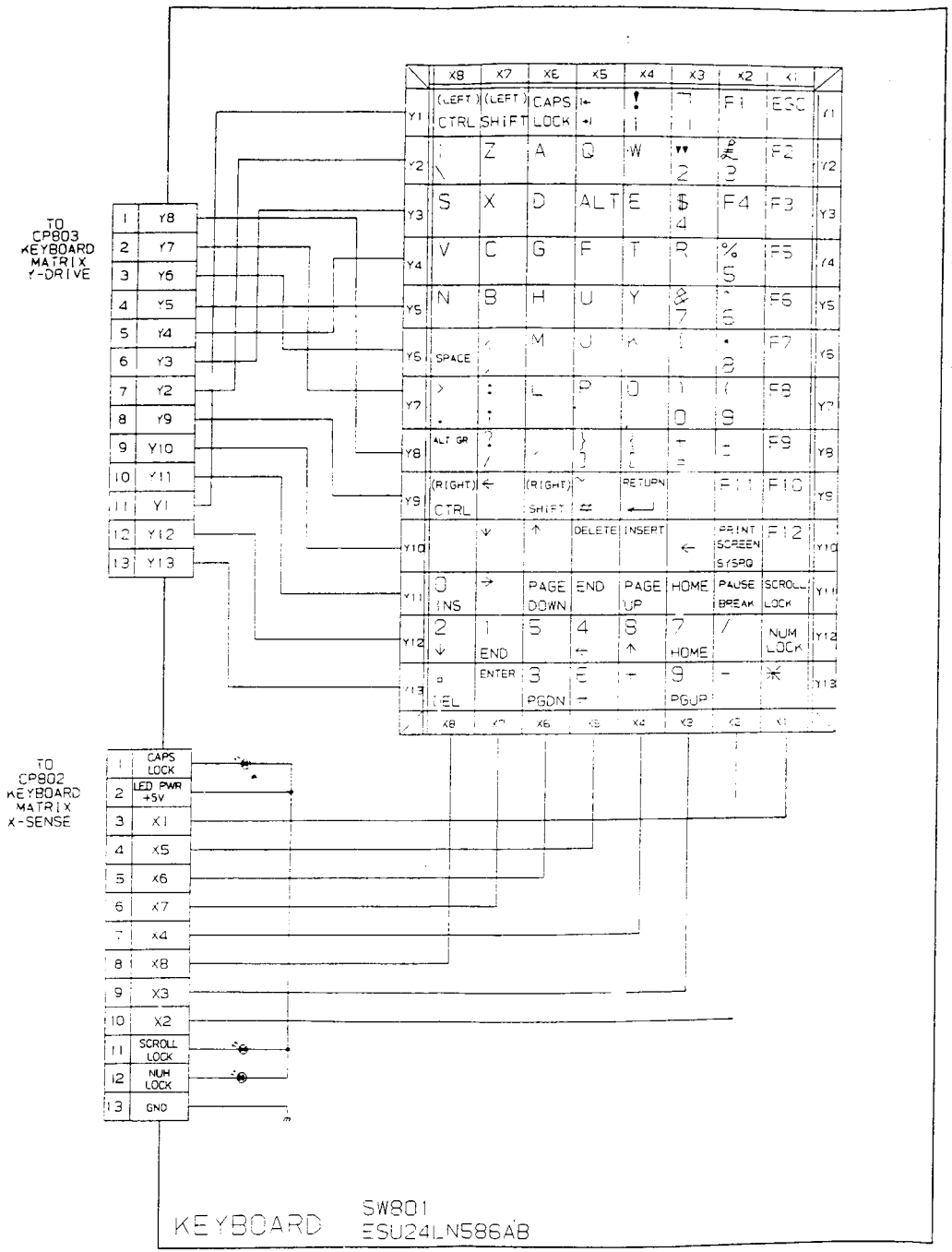


PC 2086 S/D/30 VIDEO CHASSIS SCHEMATIC DIAGRAM

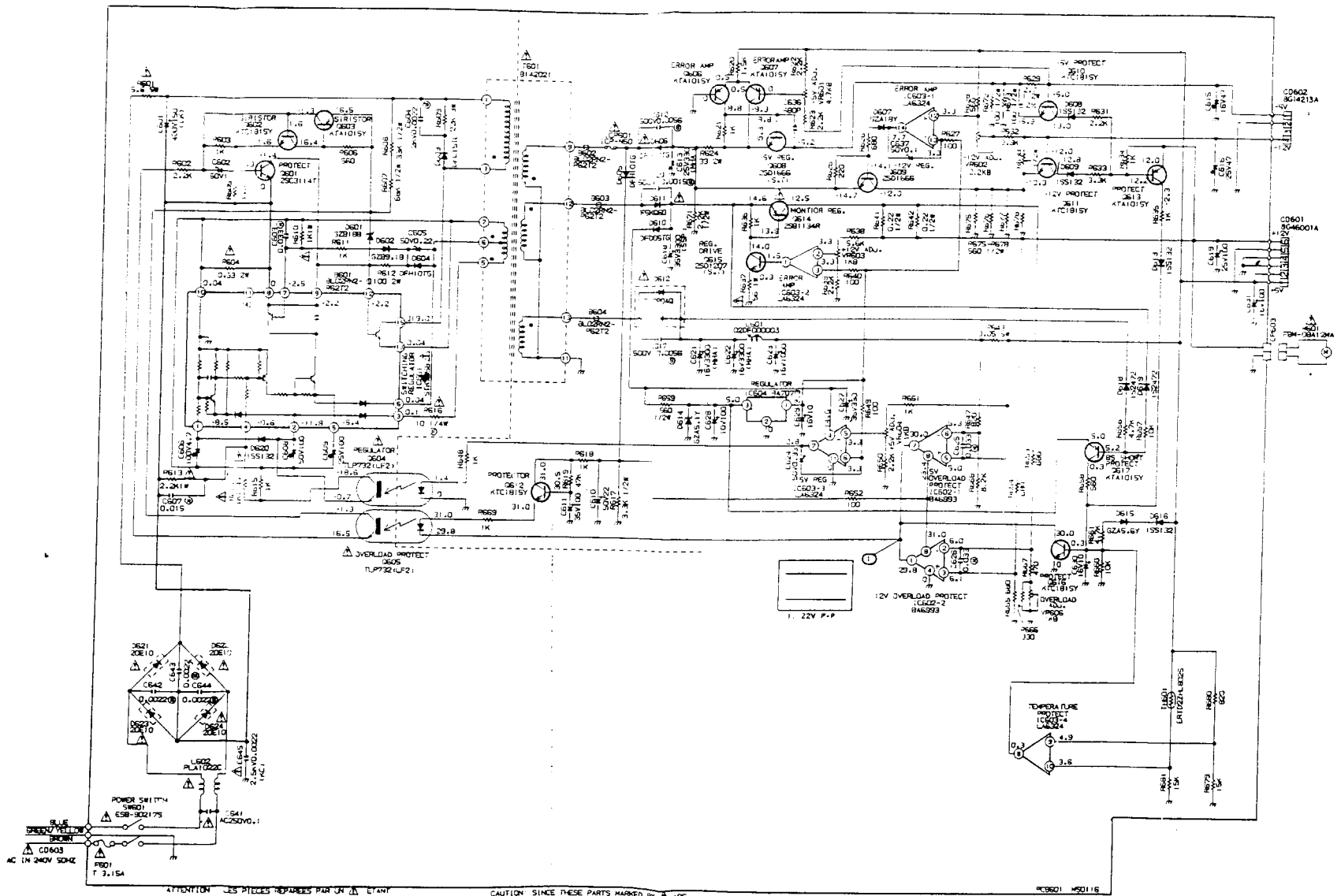



X801
6.0MHZ
C805
47PC(NPO)
C806
47PC(NPO)
R804
2.2K
R803
2.2K
R810
4.7K
R802
100
R801
100
C802
0.1(BC)
C801
16V47
R811
10K
R812
10K
+5V
CP801
KBSW 1
+5V 2
CLOCK 3
M1 4
DATA 5
M2 6
GND 7
C807
100P
KEYBOARD MATRIX Y-DRIVE
CP803
Y8 1
Y7 2
Y6 3
Y5 4
Y4 5
Y3 6
Y2 7
Y9 8
Y10 9
Y11 10
Y1 11
Y12 12
Y13 13
MICROCONTROLLER
IC801
AMS40178
X1 2
X2 3
RST 4
T0 1
T1 39
INT 6
ALE 11
RD 8
WR 10
PSEN 9
SS 5
EA 7
PROG 25
VDD 26
P10 27
P11 28
P12 29
P13 30
P14 31
P15 32
P16 33
P17 34
P20 21
P21 22
P22 23
P23 24
P24 35
P25 36
P26 37
P27 38
D80 12
D81 13
D82 14
D83 15
D84 16
D85 17
D86 18
D87 19
IC802
74HC14
D801
1SS132
C803
0.1(BC)
R807
33K
R809
47K
C808
50V10
C810
0.1(BC)
C809
0.1(BC)
KEYBOARD LED DRIVE LAT1234
IC803
74LS175
D1 4
D2 5
D3 12
D4 13
CLR 1
1Q 2
1Q 3
2Q 7
2Q 6
3Q 10
3Q 11
4Q 15
4Q 14
NR801 10K
R808 270
R806 270
R805 270
KEYBOARD MATRIX X-SENSE
CP802
LED PWR +5V
CAPS LOCK
X1 3
X5 4
X6 5
X7 6
X4 7
X8 8
X3 9
X2 10
SCROLL LOCK 11
NUM LOCK 12
GND 13
PCB801
MK0005

PC 2086 S/D/30 KEYBOARD CHASSIS SCHEMATIC DIAGRAM


TO CP803 KEYBOARD MATRIX Y-DRIVE
1 Y8
2 Y7
3 Y6
4 Y5
5 Y4
6 Y3
7 Y2
8 Y9
9 Y10
10 Y11
11 Y1
12 Y12
13 Y13
X8 X7 X6 X5 X4 X3 X2 X1
Y1 (LEFT) CTRL (LEFT) SHIFT CAPS LOCK F1 ESC
Y2 Z A Q W 2 F2
Y3 S X D ALT E 4 F4 F3
Y4 V C G F T R 5 F5
Y5 N B H U Y 6 7 F6
Y6 SPACE M J K 8 F7
Y7 : L P 0 9 F8
Y8 ALT GR ? / F9
Y9 (RIGHT) CTRL (RIGHT) SHIFT RETURN F11 F10
Y10 DELETE INSERT PRINT SCREEN SYSRQ F12
Y11 0 INS PAGE DOWN END PAGE UP HOME PAUSE BREAK SCROLL LOCK
Y12 2 1 END 5 4 8 7 HOME / NUM LOCK
Y13 . DEL ENTER 3 PGDN 9 PGUP - *
X8 X7 X6 X5 X4 X3 X2 X1
TO CP802 KEYBOARD MATRIX X-SENSE
1 CAPS LOCK
2 LED PWR +5V
3 X1
4 X5
5 X6
6 X7
7 X4
8 X8
9 X3
10 X2
11 SCROLL LOCK
12 NUM LOCK
13 GND
KEYBOARD SW801
ESU24LN586AB

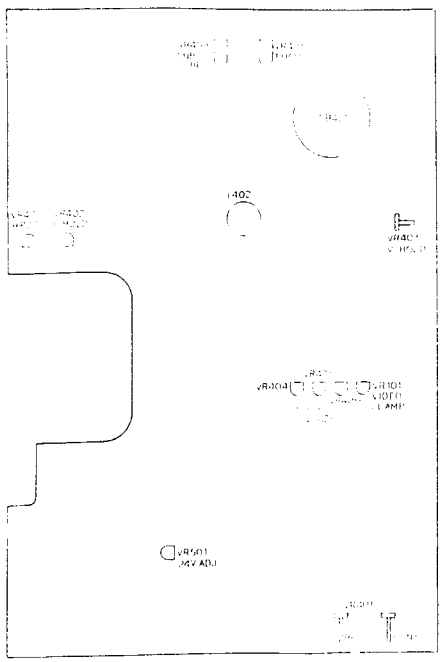
PC2086 S/D/30 POWER SUPPLY CHASSIS SCHEMATIC DIAGRAM


CD602 8G14213A
CD601 8G46001A
PBM-3841.2MA
POWER SWITCH SW601 ESB-902175
CD603 AC IN 240V 50HZ
FB01 T 3.15A
OVERLOAD PROTECT D605 TLP732(LF2)
12V OVERLOAD PROTECT
TEMPERATURE PROTECT
ATTENTION LES PIECES REPEREES PAR UN ⚠ ETANT DANGEREUSES AU POINT DE VUE SECURITE N'UTILISER QUE CELLES DECRITES DANS LA NOMENCLATURE DES PIECES.
CAUTION SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY.
NOTE THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.
PCB601 M50116

PC12 MD/O MONITOR

PC-12 MD ALIGNMENT INSTRUCTIONS

Step	FUNCTION	SIGNAL IN	SIGNAL OUT	METHOD	REMARKS
1.	To Set 24V.	VGA Test Disc.	On Screen.	Select 100% White" pattern on the monitor screen. Probe Q501 Emitter to read 24V D.C. ±0.1V. Adjust VR501. (*Use F8 Key).	Brightness & Contrast Controls to Maximum position.
2.	H. Hold Adjustment.	No signal free run condition.	Frequency Counter.	Connect Frequency Counter to heater circuit of Tube (Pin 3). Adjust VR402 to read frequency 31.46kHz.	Brightness & Contrast Controls to Maximum position.
3.	H. Position Adjustment.	VGA Monitor Test Disc.	On Screen.	Select θ pattern on the screen (480 line mode). Adjust the picture & key to centre position. Adjust VR401 to make L=J.	Refer to Fig. 1.
4.	Video Clamp Adjustment.	VGA Monitor Test Disc.	On Screen.	Select 100% White pattern on the Monitor Screen (Use F8 Key) scope collector of Q801. Adjust VR101 to get 4V-6V width. Allow 3-5 minutes for the full test.	Refer to Fig. 2.
5.	Centering Adjustment.	VGA Monitor Test Disc.	On Screen.	Select θ Pattern" Adjust Vertical Picture Position by Adjusting D.Y. and then by adjusting centering magnets. (* Use e Key).	Refer to Fig. 2.
6.	H. Size Adjustment.	VGA Monitor Test Disc.	On Screen.	Select θ Pattern" Adjust L402 to get L=J to be 15mm ± 2mm. (* Use e Key).	Refer to Fig. 1.
7.	V. Size Adjustment.	VGA Monitor Test Disc.	On Screen.	Select θ Pattern". (* Use e Key). 1. Adjust VR406 to get I=K — to be 10mm ± 2mm. 480 line mode. 2. Adjust VR405 to get I=K to be 10mm ± 2mm. When θ Pattern with (d key) 350 line mode. 3. Adjust VR404 to get I=K to be 10mm ± 2mm. When θ Pattern with (c key) 200 line mode.	Refer to Fig. 1.
8.	Pin Adjustment.	VGA Monitor Test Disc.	On Screen.	Select φ Pattern with (e key). Adjust all four corners to perfect right angles with 4 pole support magnets of D.Y.	Check if all the 0's are equal after the adjustment.
9.	Sub Brightness Adjustment.	VGA Monitor Test Disc.	On Screen.	Select 100% White Pattern with F8 key. Use white balance checker, point sensor from high side to read 0.3% with VR409.	Check if all the 0's are equal after the adjustment.
10.	Focus Adjustment.	VGA Monitor Test Disc.	On Screen.	Select Focus Pattern. Use 5 key. Adjust VR408 to get point 'A' clearly.	Refer to Fig. 3.



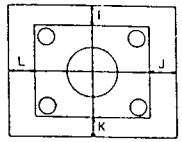


Fig. 1

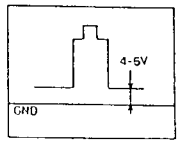


Fig. 2

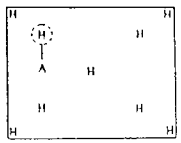
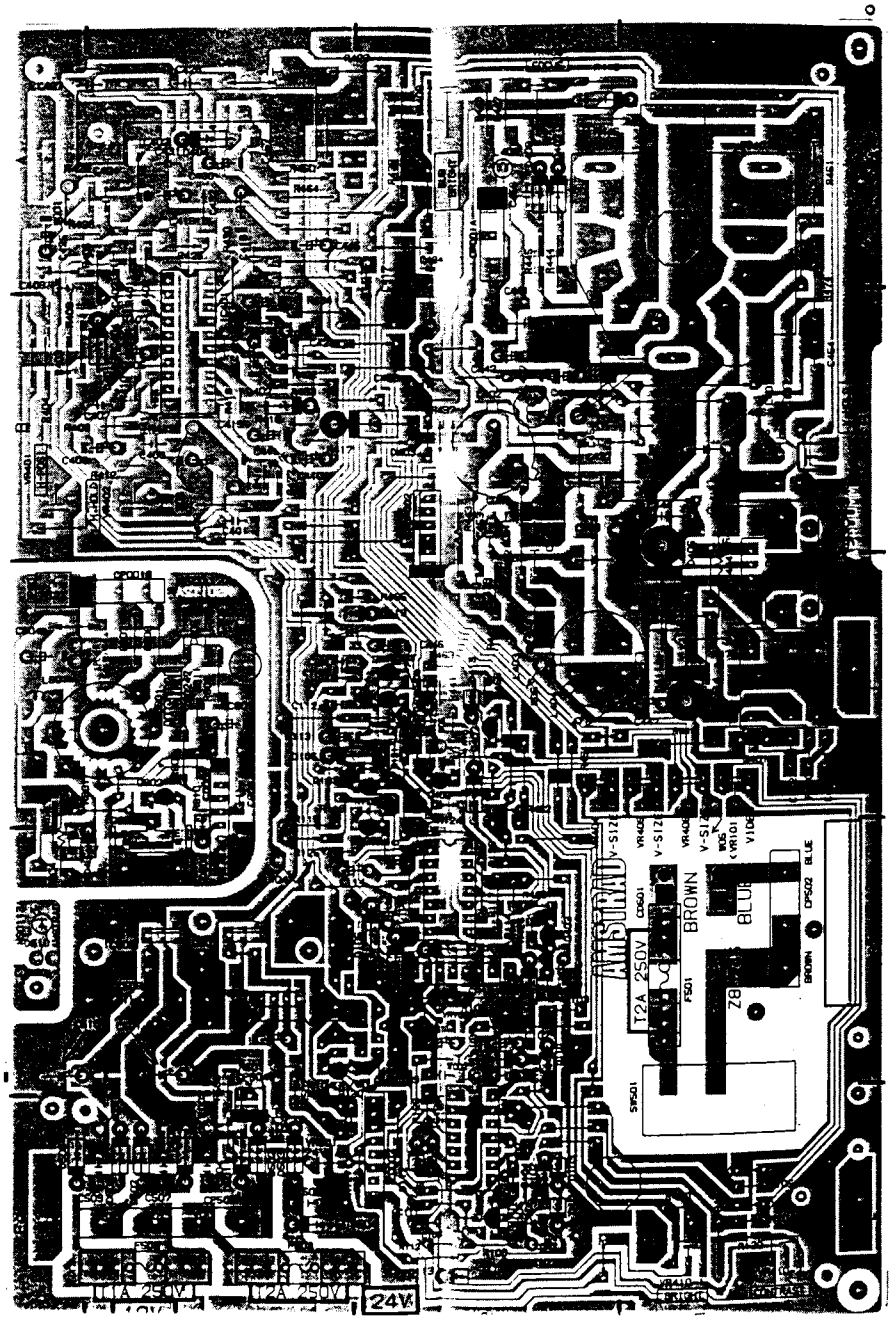


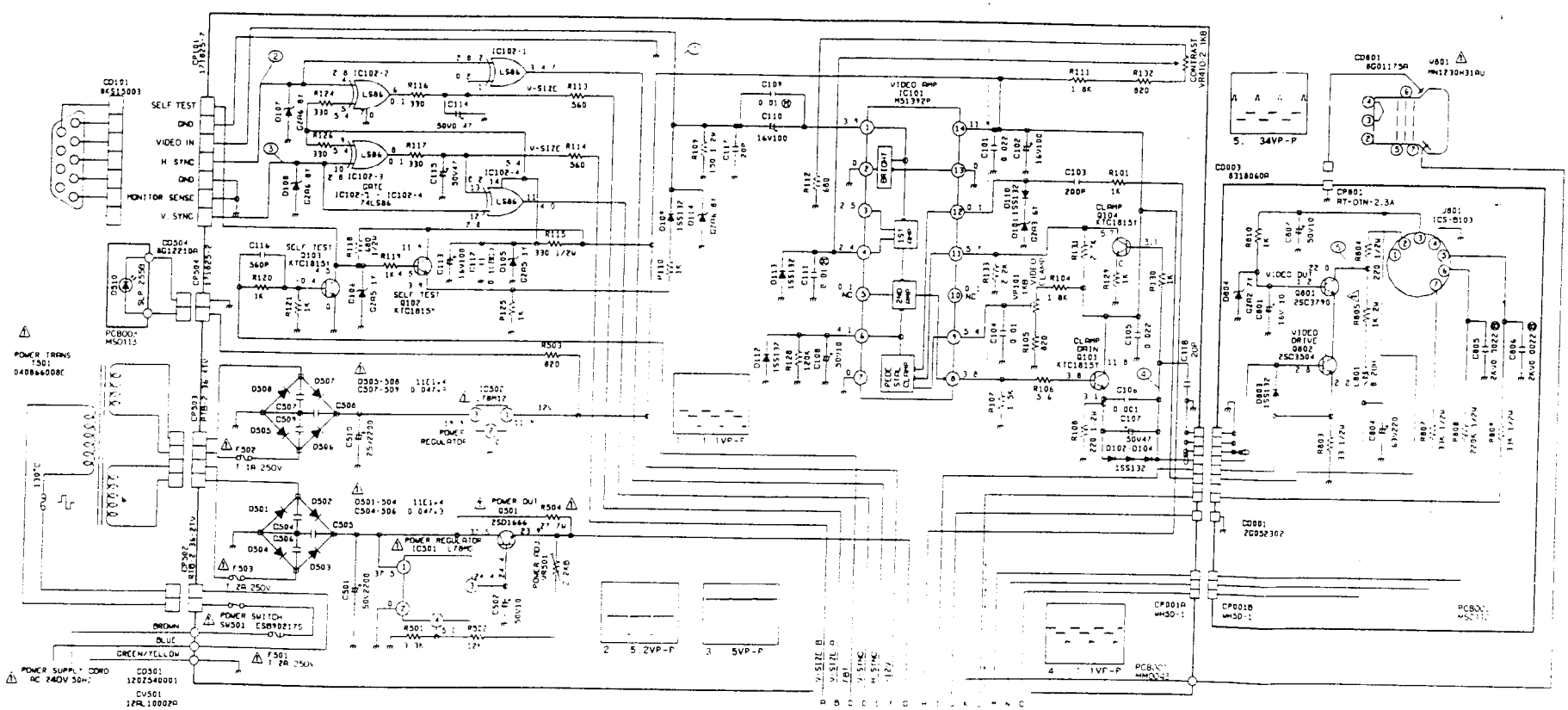
Fig. 3

PC12 MD/O MONITOR/CRT/LED PCB

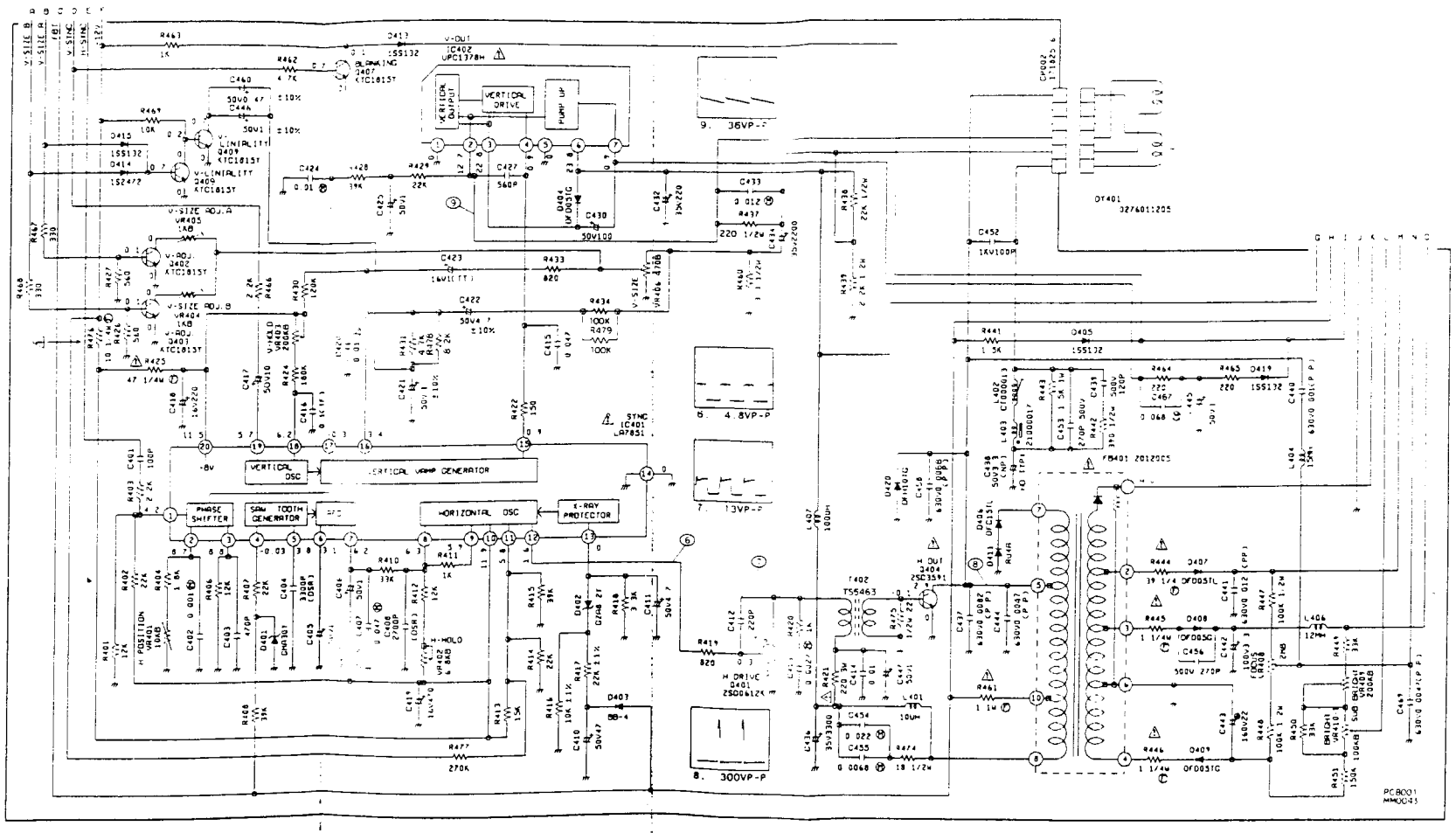


NOTES

PC12 MD/O CHASSIS SCHEMATIC DIAGRAM



CHASSIS SCHEMATIC DIAGRAM



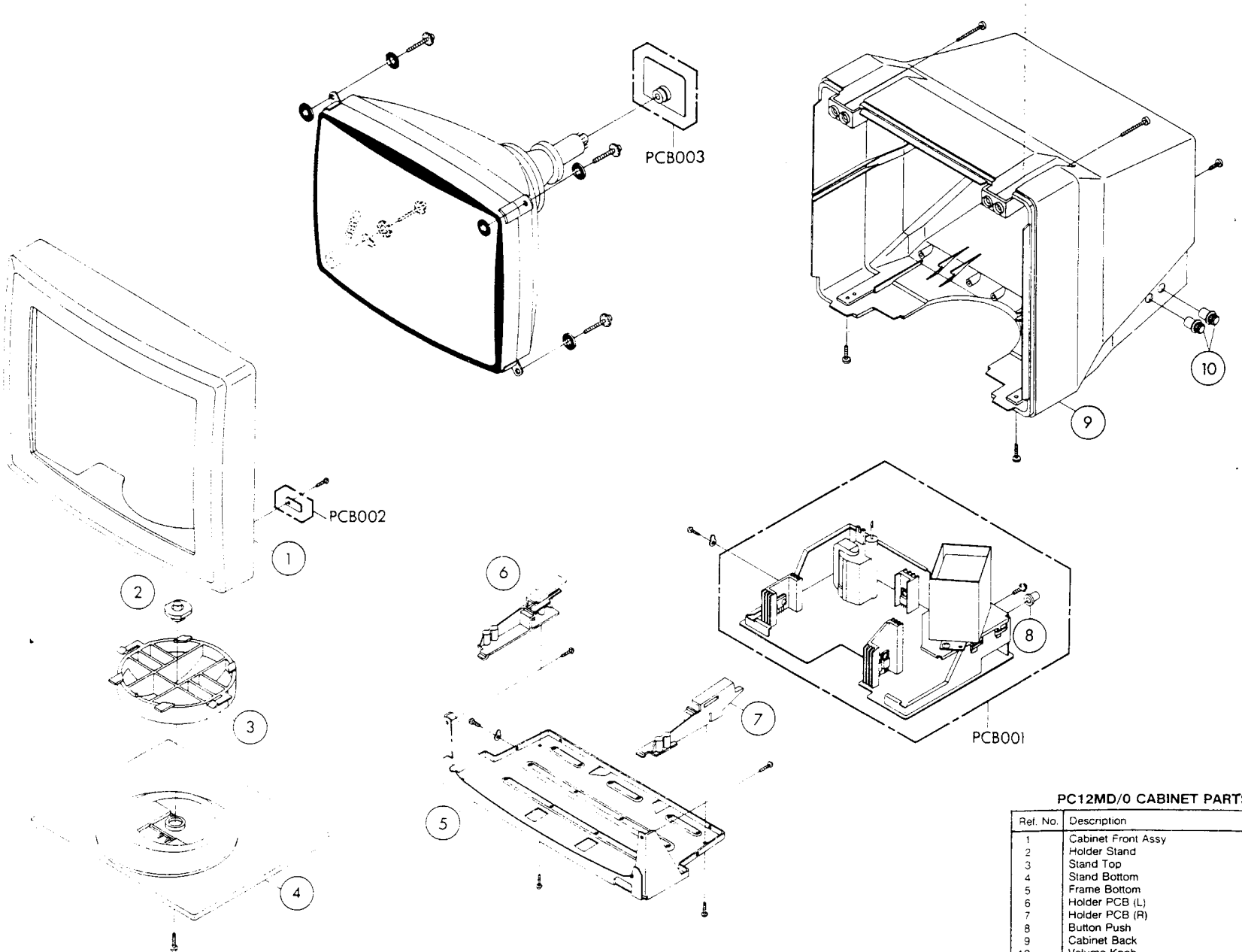
CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONLY DESIGNATED ON PARTS LIST ONLY.

ATTENTION: LES PIECES REPAREES PAR UN ⚠ SONT DANGEREUSES-AU POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

CHASSIS SCHEMATIC DIAGRAM

1-7199



PC12MD/0 CABINET PARTS LIST

Ref. No.	Description	Part No.
1	Cabinet Front Assy	175751
2	Holder Stand	175752
3	Stand Top	175753
4	Stand Bottom	175754
5	Frame Bottom	175755
6	Holder PCB (L)	175756
7	Holder PCB (R)	175757
8	Button Push	171469
9	Cabinet Back	175758
10	Volume Knob	171362

PC12MD/0 ELECTRICAL PARTS LIST

Ref. No.	Description	Part No.
I.C.s		
IC101	IC M51392P	175768
IC102	IC SN74LS86N	175769
IC401	IC LA7851	175770
IC402	IC UPC1378H	170444/A
IC501	IC L78MG-OEC	170446
IC502	IC L78M12	190062
Transistors		
Q101-104, 402, 403, 407-409	TR KTC1815Y	170447
Q401	TR 2SD612KE-SA	175771
Q404	TR 2SC3591	175772
Q501	TR 2SD1666	171045
Q801	TR 2SC3790E-RA	175080
Q802	TR 2SC3504E	175773
Diodes		
D101	DZ GZA3.6 YBT	175763
D102-104, 109, 110, 112, 113, 405, 413-415, 419, 803	D 1SS132T-77	171582
D105, 106	DZ GZA5.1 YBT	1422112
D107, 108, 114	DZ GZA6.8 YBT	175636
D401	DZ GZA30 YBT	175646
D402	DZ GZA8.2 YBT	175764
D403	D 8B4-FC	1422116
D404	D DFD05TG-BT	171490
D406	D DFC15TL-KCS	171491
D407	D DFD05TL	175765
D408, 409	D DFD05TG-BT	171490
D411	D RU4A	175766
D420	D DFH10TG-KB4	171492
D501-508	D 11E1TA1-T	171551
D510	LED SLP-255B	176028
D804	DZ GZA2.7 YBT	175767
Coils		
L401	Coil 10uH	175774
L402	Coil Width CT000013	175775
L403	Coil Linearity 21000017	175776
L404	Coil 15mH	175777
L406	Coil 12mH	175778
L407	Coil 100uH	175779
L801	Coil 8.2uH	175780
T402	Transformer Hor. Drive TS5463	175817
T501	Transformer Power AC	175818
P.C.B.s		
PCB001	Monitor PCB MM0043-C	175793
PCB002	CRT PCB MS0113	175794
PCB003	LED PCB MS0113	175795
Variable Resistors		
VR101, 405	VRSF 1kΩ	175783
VR401	VRSF 10kΩ	175784
VR402	VRSF 6.8kΩ	175785
VR403	VROT 200kΩ	175786
VR404	VRSF 1kΩ	175787
VR406	VRSF 470Ω	175789
VR408	VRSF 2MΩ	175790
VR409	VRSF 200kΩ	175791
VR410	VROT 200kΩ + 1kΩ	175792
VR501	VRSF 2.2kΩ	176106
Miscellaneous		
J801	Socker CRT ICS-B103	171567
SW501	Switch Push	171511
CD101	D-Sub Connector Video	175799
DY401	Deflection Yoke	175810
F501, 503	Fuse 2A(T)	175811
F502	Fuse 1A(T)	175812
FB401	Line Out Transformer	175813
V801	CRT MN1230H31AU	175816

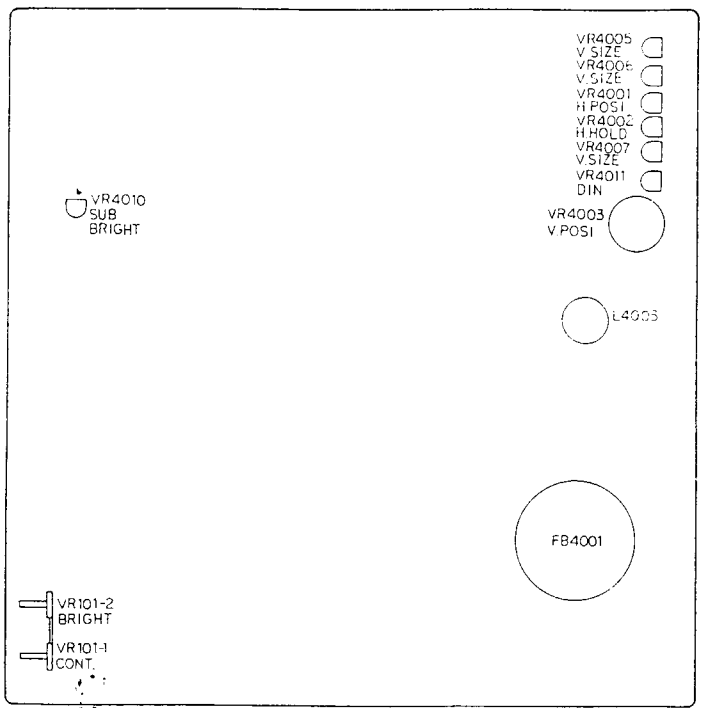
Description	Ref. No.	Part No.
Resistors All resistors 1/6W unless stated otherwise		
5.6Ω	R106	152147
22Ω	R475	152156
120Ω	R128	152167
220Ω	R465	152170
330Ω	R124, 467	152172
560Ω	R113, 114 , 427	152175
680Ω	R112	152176
820Ω	R105, 132, 503	152178
1kΩ	R101, 110, 119-121, 125, 130, 411, 420, 463, 810	142179
1.5kΩ	R107, 441	152181
1.8kΩ	R104	152182
2.2kΩ	R133, 466	152183
2.7kΩ	R131, 409	152184
3.3kΩ	R418, 501	152185
10kΩ	R469	152194
12kΩ	R401, 412	152195
4.7kΩ	R431, 462	152188
22kΩ	R402, 407, 414, 429	152198
33kΩ	R410, 450	152200
39kΩ	R415, 428	152201
270kΩ	R477	152214
1.8kΩ/¼W	R111	10067
3.3Ω/½W	R460	176322
18Ω/½W	R474	176323
33Ω/½W	R803	176324
150Ω/½W	R109	176325
220Ω/½W	R108, 437	176326
330Ω/½W	R115	176327
390Ω/½W	R442	176328
680Ω/½W	R118	176329
2.2kΩ/½W	R439	176283
22kΩ/½W	R438	176330
33kΩ/½W	R807, 809	176331
100kΩ/½W	R447, 448	176332
220kΩ/½W	R808	176333
Metal Film Resistors		
820Ω/1/6W	R433	176334
10kΩ/1/6W	R416	176335
22kΩ/1/6W	R417	176336
120kΩ/¼W	R430	176337
Metal Oxide Resistors		
220Ω/3W	R421	176338
1kΩ/2W	R805	10062
1.5kΩ/1W	R443	176339
Fuse Resistors		
1Ω/¼W	R445, 446, 451	176340
10Ω/½W	R476	176341
39Ω/¼W	R444	171596
47Ω/¼W	R425	176342
Cement resistor		
27Ω/7W	R504	176343
Ceramic Capacitors		
20pF	C117, 118	176350
100pF	C401	176351
100pF/1kV	C452	176344
120pF	C439	150491
200pF	C103	176352
220pF	C412	400107
270pF/500V	C453, 456	176345
470pF	C403	176353
560pF	C116, 427	809238
0.001µF	C106	24027
0.0022µF	C805, 806	176354
0.01µF	C104, 414	24011
0.022µF	C101, 105	21027
0.047µF	C415, 504-509	152645
0.1µF	C112	24020

Description	Ref. No.	Part No.
Electrolytic Capacitors		
0.047µF/50V	C114, 460	176355
1µF/50V	C405, 406, 421, 425, 445-447	20062
3.3µF/50V	C438	176346
3.3µF/100V	C442	176347
4.7µF/50V	C411, 422	176356
10µF/16V	C801	20148
10µF/50V	C108, 417, 502, 807	176314
22µF/160V	C443	176357
47µF/50V	C107, 115, 410	176348
100µF/16V	C102, 110, 113	20028
100µF/50V	C430	176320
220µF/63V	C804	176349
220µF/16V	C418	150523
220µF/35V	C432	201722
470µF/16V	C419	176358
2200µF/25V	C510	151310
2200µF/35V	C434	152097
2200µF/50V	C501	176359
3300µF/35V	C436	171655
Polystyrene Capacitors		
0.001µF	C402	176308
0.0027µF	C413	176360
0.0068µF	C455	176361
0.01µF	C109, 111, 420, 424	176309
0.012µF	C433	176362
0.022µF	C454	176363
0.047µF	C407	176312
0.068µF	C467	170129
Polypropylene Capacitors		
0.001µF	C440	176364
0.0047µF/630V	C469	176365
0.0068µF/630V	C458	176366
0.0082µF	C437	176367
0.012µF	C441	176368
Plastic Capacitors		
0.0027µF/50V	C408	176369
0.0033µF/50V	C404	176370
Tantalum Capacitors		
1µF/16V	C423	176371
Metal Plastic Capacitors		
0.1µF/50V	C416	176372

PC12 HRCD/O MONITOR

PC12 HRCD/O ALIGNMENT INSTRUCTIONS

Step	FUNCTION	SIGNAL IN	SIGNAL OUT	METHOD	REMARKS
1.	H. Hold Adjustment.	None	Monitor Screen. Free Run Condition.	Connect A Freq. Counter to heater circuit Pin. 9. of CRT socket. Adjust VR4002 to read line freq. 31.46kHz.	
2.	Focus Adjustment.	VGA Test Disc.	On Screen.	Select Focus Pattern. Use 5 key. Adjust VR on the F.B.T. so that point A is seen clearly.	Refer to Fig. 1.
3.	Sub Brightness Adjustment.	VGA Test Disc.	On Screen.	Select @ Pattern (480 line mode). Adjust VR4010 so that the raster in the background of the screen lightens up.	Refer to Fig. 2.
4.	V.Pos, H.Pos, V.Size, H.Size, Adjustment.	VGA Test Disc.	On Screen.	Select @ Pattern (480 line mode). Adjust picture in centre position with VR4003 and VR4001. 1. Adjust VR4007 to get A, I, B, E, K, and F points to 10mm ± 2mm. 480 line mode. (* Top & Bottom Borders). 2. Adjust VR4006 to get A, I, B, E, K, and F points to 10mm ± 2mm, 350 line mode. (* Top & Bottom Borders). 3. Adjust VR4005 to get A, I, B, E, K, and F points to 10mm ± 2mm. 200 line mode. (* Top & Bottom Borders). 4. Adjust VR4003 to get C, J, D, G, L, and H points to 15mm ± 2mm.	Refer to Fig. 2.
5.	DIN Adjustment.	VGA Test Disc.	On Screen.	Select @ Pattern. Adjust VR4011 to get A A, B & B points within 1mm.	Refer to Fig. 3.
6.	Colour Purity, Static Dynamic Convergence, Black & White Tracking	Adjustment Information Can Be Obtained On Special Request.			



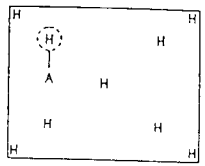


Fig. 1

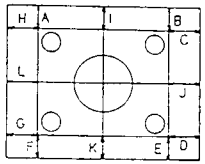


Fig. 2

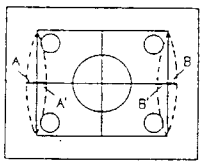


Fig. 3

Ref. No.	Description	Part No.
I.C.s		
IC101	IC M51387P	175652
IC102	IC SN74LS86N	175653
IC501	IC STK7356	171478
IC502	IC L7812V	177044
IC4001	IC LA7851	175656
IC4002	IC UPC1378H	170444/A
Transistors		
Q101-103	TR 2SD1207T-AE	170451
Q104, 105, 4001, 4002, 4011-4015	TR 2SC1815Y	170447
Q801	TR 2SC3790E	175080
Q802, 804, 806	TR 2SC3468E-AE	175661
Q803, 805	TR 2SC3790E	175080
Q4003	TR 2SC2621E	1422116
Q4006, 4009, 4010	TR 2SA1015Y	170453
Q4007	TR 2SC2120Y	170113
Q4008	TR 2SD1555	175665
Diodes		
D101, 103, 106, 110, 111	DZ GZA6.8 YBT	175636
D102, 104, 105, 113, 115-121, 505, 512, 801-806, 4017 4018, 4020, 4022, 4024, 4025, 4027-4032	D 1SS132T-77	171582
D107	DZ GZA3.9 YBT	175638
D109, 114	DZ GZA5.1 YBT	1422112
D501-504	D 20E10FA13	171048
D506	D DFC15TL-KC5	171491
D507, 509	D DFH10TG-AT1	175642
D508	DZ GZB9.1 B	171493
D510	D 30DF6 FC	171494
D511	D Avalanch SR2M	1400122
D4001	DZ GZA30 YBT	175646
D4003	DZ GZA11 YBT	810339
D4004	D BB4-FC	1400116
D4004, 4026	DZ GZA12 YBT	175649
D4006, 4011, 4012	D DFD05TG-BT	171490
D4019	LED SLP-255B	176028
Coils		
L501	Coil Line Filter AC PLA1022C	171502
L502	Coil Degauss	175667
L801-803	Coil 10uH	175668
L804-806	Coil 47uH	175669
L4001	Coil Linearity	175670
L4002	Coil 4.7mH	171501
L4003	Coil Width	175672
L4005	Coil 5.6uH	175673
L4006	Coil 1000uH	175674
T501	Trans Switching 8103002	175675
T4001	Trans Hori. Drive	175676
T4002	Trans Pin Cushion 5325009	175677
Variable Resistors		
VR101	VROT 5kΩ + 5kΩ	175681
VR801	VRSF 500Ω R Drive	171699
VR802	VRSF 500Ω B Drive	171700
VR803	FRSF 5kΩ R Cut Off	171696
VR804	VRSF 5kΩ G Cut Off	171697
VR805	VRSF 5kΩ B Cut Off	171698
VR4001	VRSF 10kΩ	175687
VR4002, 4011	VRSF 6.8kΩ	175688
VR4003	VRSF 1kΩ 2W	175689
VR4004	VROT 200kΩ	175690
VR4005, 4006	VRSF 1kΩ	175691
VR4007	VRSF 470Ω	175692
VR4010	VRSF 3.3kΩ	175693

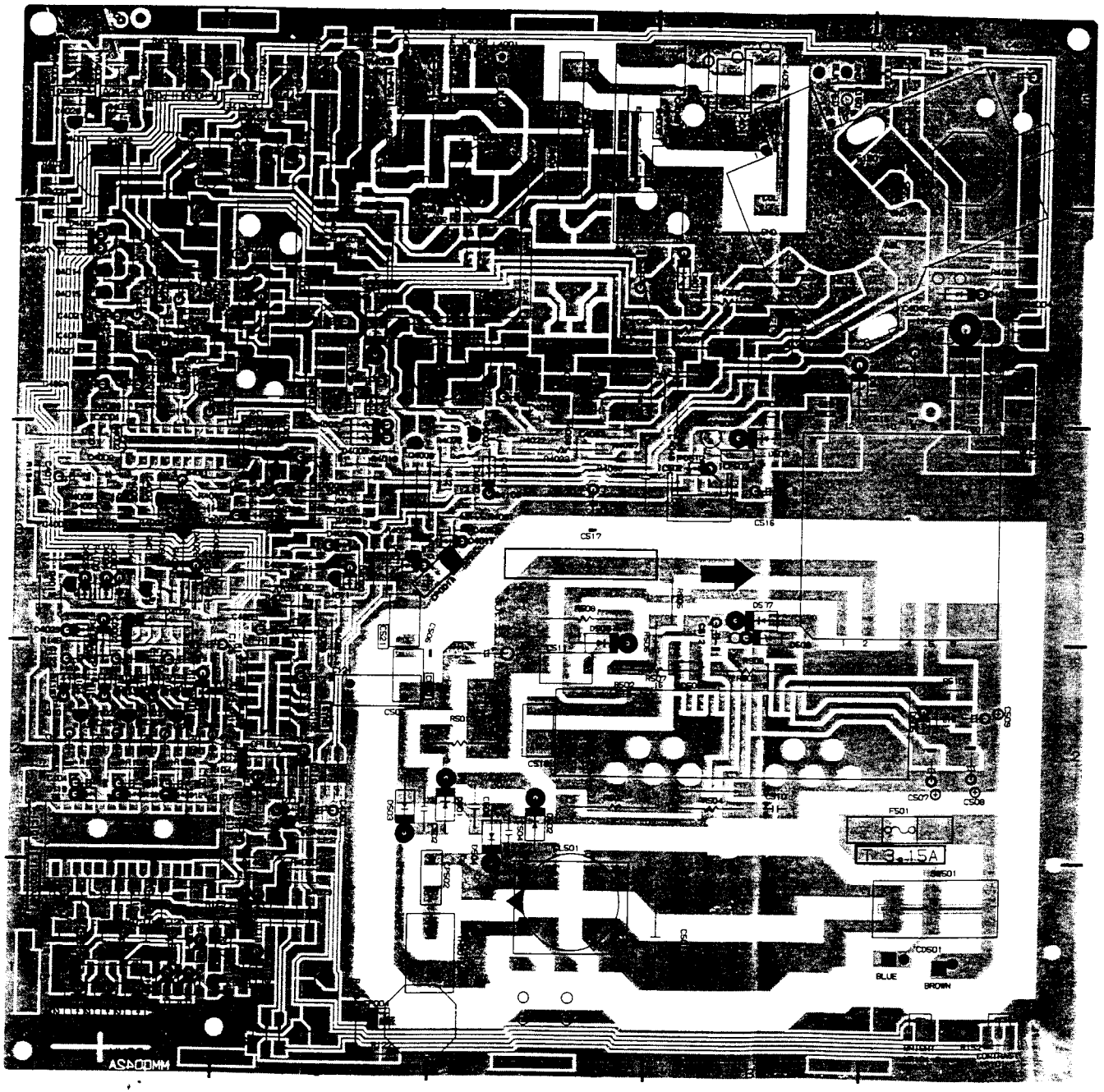
Circ. Ref.	Description	Part No.
P.C.B.s		
PCB001	Monitor PCB MM0042A-M	175694
PCB002	LED PCB	
PCB003	CRT Socket PCB MSO111A	175696
Miscellaneous		
J801	CRT Socket	175673
SW501	Power Switch	171511
SW4001	Service Normal Switch	171510
B002-004	Ferrite Beads	
CD101	Video Connector D-Sub	175700
F501	Fuse 3.15A(T)	171531
FB4001	Line Output Trans. 3F12001	175714
ICP501	IC Protector PRF-2500-F004	175715
ICP502	IC Protector ICP-N75T104	171057
ICP503	IC Protector PRF-630-F003	175104
TH501	Degauss Element	171533
C301	CRT M29JMN81X07	175719

Description	Ref. No.	Part No.
Resistors All resistors 1/6 Watt unless otherwise stated		
100Ω	R813	152166
150Ω	R153-155, 810-812, 4025	152168
330Ω	R136, 137, 149, 815, 816, 4031, 4032	152172
390Ω	R814	152173
470Ω	R130-132, 817-819, 4082	152174
560Ω	R133, 134, 4029, 4030, 4037	152175
1kΩ	R107-109, 129, 139-142, 150, 151, 4011, 4069, 4104	152179
1.2kΩ	R152	152180
2.2kΩ	R122, 143, 4003, 4092	152183
2.7kΩ	R124, 4009	152184
3.9kΩ	R4090	152187
4.7kΩ	R4005	152188
5.6kΩ	R128	152189
6.8kΩ	R104-106, 145-147	152190
8.2kΩ	R123	152192
10kΩ	R4100	152194
12kΩ	R824-826, 4001	152195
18kΩ	R116-118, 4087	152197
22kΩ	R4002, 4006, 4007, 4072, 4091	152198
33kΩ	R4010	152200
39kΩ	R512, 4033	152201
56kΩ	R4086	152204
82kΩ	R110-112	152207
100kΩ	R4067, 4106	152209
120kΩ	R4068	152210
150kΩ	R4035	152211
Resistors (All ¼W)		
150Ω	R4024	10036
220Ω	R4021	10040
330Ω	R148	10044
560Ω	R4080	10050
680Ω	R4093	10052
820Ω	R4079, 4084	10054
6.8kΩ	R4088	10081
10kΩ	R4101	10085
15kΩ	R4013	10089
33kΩ	R4034	10097
39kΩ	R4008	10099
56kΩ	R4105	10103
68kΩ	R4089	10105
150kΩ	R4027	10113
220kΩ	R830	10117

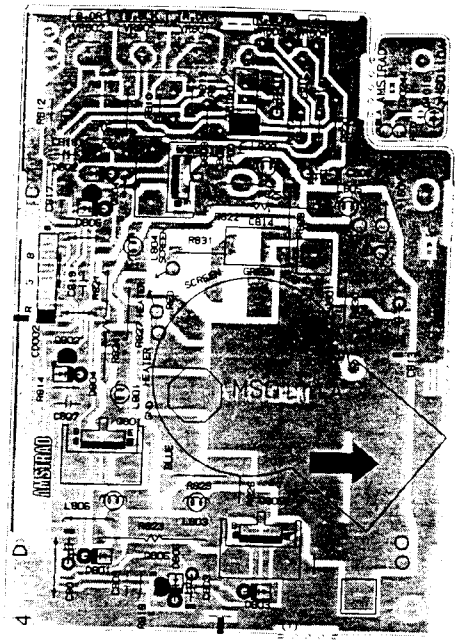
Description	Ref. No.	Part No.
Resistors (All ½W)		
2.7Ω	R4030	176281
4.7Ω	R4039	176374
5.6Ω	R4045	176375
18Ω	R4085	176373
75Ω	R125-127	176376
100Ω	R101-103	176377
180Ω	R4103	176378
220Ω	R4081	176379
330Ω	R144, 4041	176327
390Ω	R4051, 4053	176328
470Ω	R827-829, 4050	176382
680Ω	R138	176329
1.2kΩ	R820	176384
3.9kΩ	R4022	176385
100kΩ	R505, 506	176332
1MΩ	R831	176387
Metal Film Resistors		
1Ω/3W	R502	176388
15Ω/2W	R511	176389
47Ω/2W	R4028	176390
680Ω/1/6W	R4044	176391
3.3kΩ/16W	R4020	176392
8.2kΩ/1/6W	R4012	176393
10kΩ/1/6W	R4026	176335
33kΩ/1/6W	R4019	176395
56kΩ/1/6W	R4018, 4043	176396
330kΩ/¼W	R4038	176397
Metal Oxide Resistors		
68Ω/2W	R4014	176398
82Ω/2W	R507	176399
100Ω/1W	R4052	176410
680Ω/2W	R4049	176411
1kΩ/2W	R4099	10062
3.3kΩ/1W	R504	176413
3.9kΩ/1W	R503	176414
4.7kΩ/3W	R4023	176415
8.2kΩ/3W	R821-823	176416
33kΩ/2W	R508	176417
Cement Resistors		
4.7Ω/5W	R4063	176418
5.6Ω/5W	R501	1422138
Fuse Resistors		
1Ω/¼W	R4064	809252
3.9Ω/2W	R4097	176419
8.2Ω/½W	R4062	176420
10Ω/¼W	R510	809256
10Ω/½W	R4066	176341
470Ω/½W	R509	176422

Description	Circ. Ref.	Part No.
Electrolytic Capacitors		
0.1µF/50V	C801-803	150908
0.22µF/50V	C512	800211
0.47µF/50V	C122	151641
1µF/50V	C402, 4005, 4006, 4021, 4025, 4060, 4063	20062
1µF/160V	C4014	1422151
1µF/250V	C4037	1422152
2.2µF/50V	C104-106	175144
4.7µF/50V	C4011	1400240
10µF/25V	C4017, 4054	20037
10µF/50V	C4057	176314
10µF/100V	C509	176421
22µF/25V	C127, 129, 131	201565
22µF/63V	C508	170609
22µF/100V	C4010	176432
22µF/200V	C813, 4043	176433
47µF/25V	C121, 126, 128, 130, 4036	151640
47µF/50V	C507	170421
100µF/16V	C517	20028
100µF/25V	C118-120, 4035	800370
100µF/50V	C4030	176320
150µF/400V	C506	171450
220µF/16V	C125, 4018	20029
220µF/160V	C515	171651
330µF/16V	C108-110, 114, 816, 4050, 4064	800371
470µF/35V	C516	171653
1000µF/35V	C4044	1422159
2200µF/16V	C4009	176425
2200µF/35V	C4034	1422160
Ceramic Capacitors		
22pF/500V	C4012	1400217
56pF	C4051	1400362
100pF	C4001	1422143
120pF	C804-806, 4062	150491
180pF	C807-809	150492
240pF	C4055	170428
270pF	C4003	150501
270pF/500V	C4042, 4045	176345
390pF/2kV	C4052	176426
470pF	C4056	150496
560pF/500V	C135, 4027	1400220
560pF/2kV	C4041	176427
680pF	C4013, 4058, 4059	1400213
820pF/2kV	C518	171643
1000pF/500V	C513	176428
1000pF/2kV	C814	176429
1500pF/2kV	C511, 514	176430
2200pF/4kV	C505	170430
6800pF/500V	C4053	176431
0.0022µF/2kV	C502-504	1400223
0.01µF	C107, 115-117	810312
0.022µF	C136	21027
Metal Plastic Capacitors		
0.1µF	C501, 4016	171658
Plastic Capacitors		
0.0027µF	C4008	176369
0.0033µF	C4004	176370
Polystyrene Capacitors		
0.0039µF	C4024	200536
0.0082µF	C4033	170615
0.01µF	C4020	1409176
0.022µF	C510, 4007, 4061	1409182
0.047µF	C4015	1409178
Metal Polypropylene Capacitors		
0.1µF/200V	C4046	171658
0.33µF/200V	C4038	176434
Tantalum Capacitors		
1µF/16V	C4023	176371
Metal Capacitors		

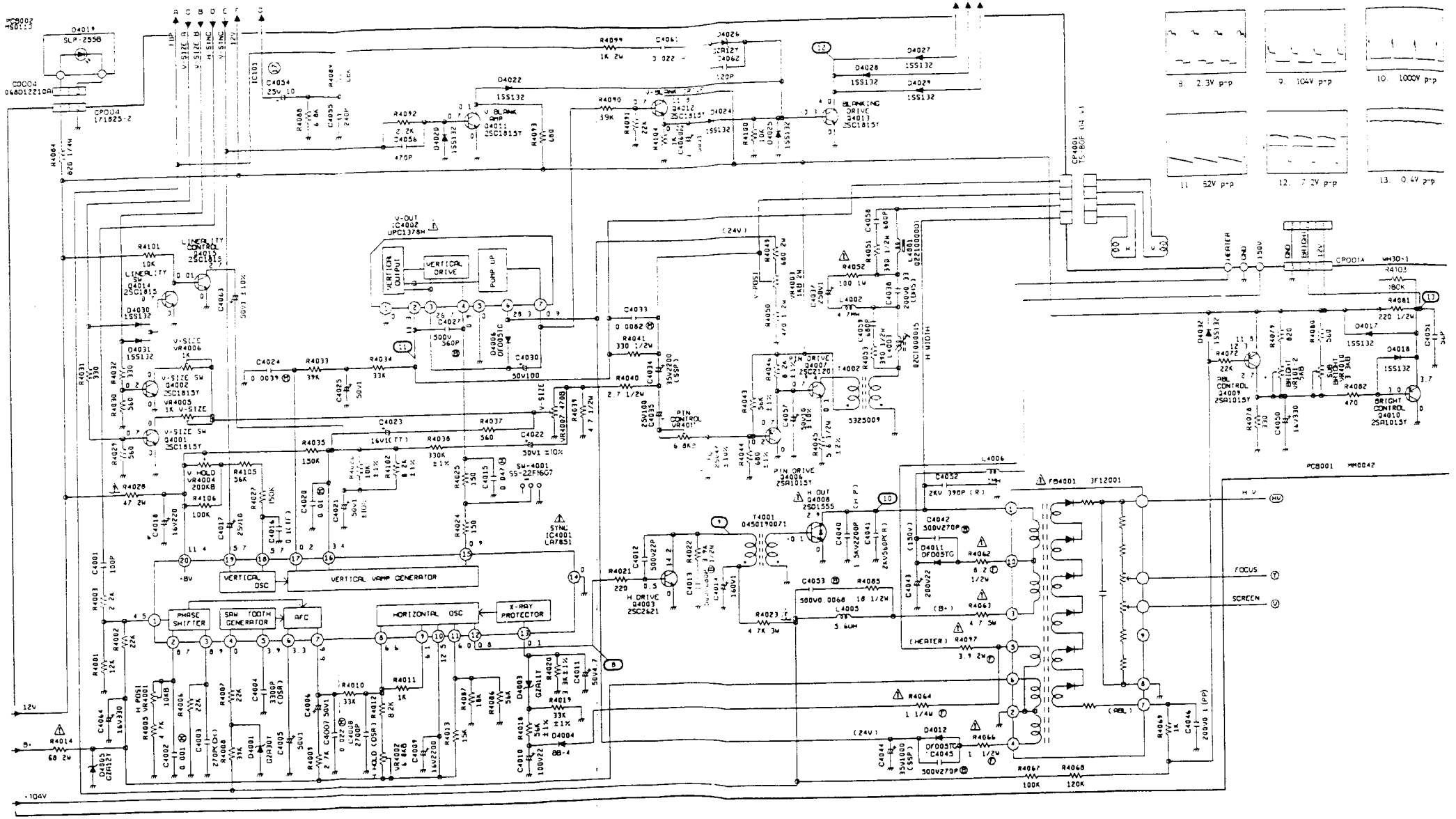
PC12 HRCD/O MONITOR PCB



PC12 HRCD/O CRT/LED PCB



PC12 HRCD/O CHASSIS SCHEMATIC DIAGRAM

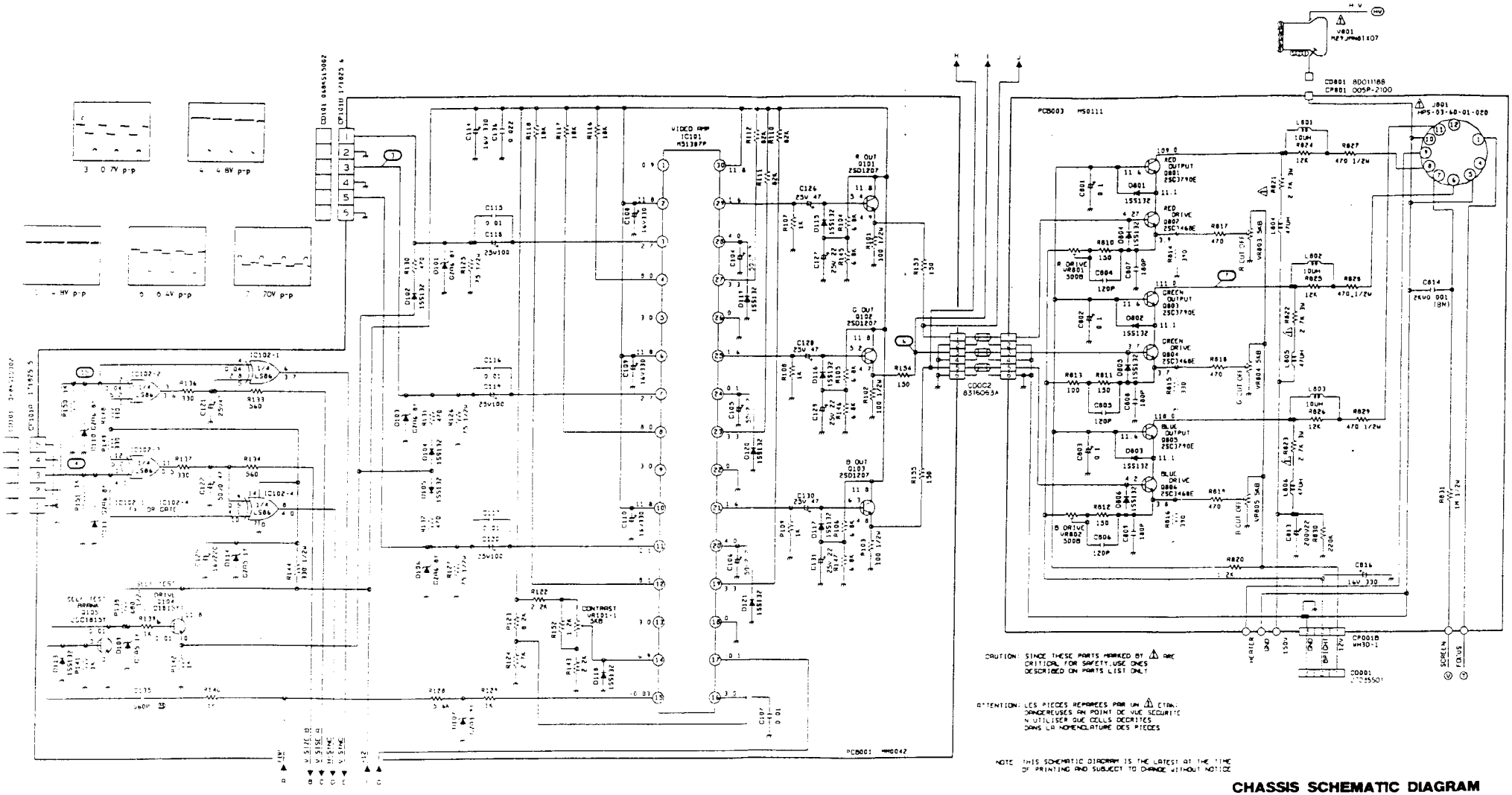


CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY

ATTENTION: LES PIECES REPEREES PAR UN ⚠ ETANT DANGEREUSES AU POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

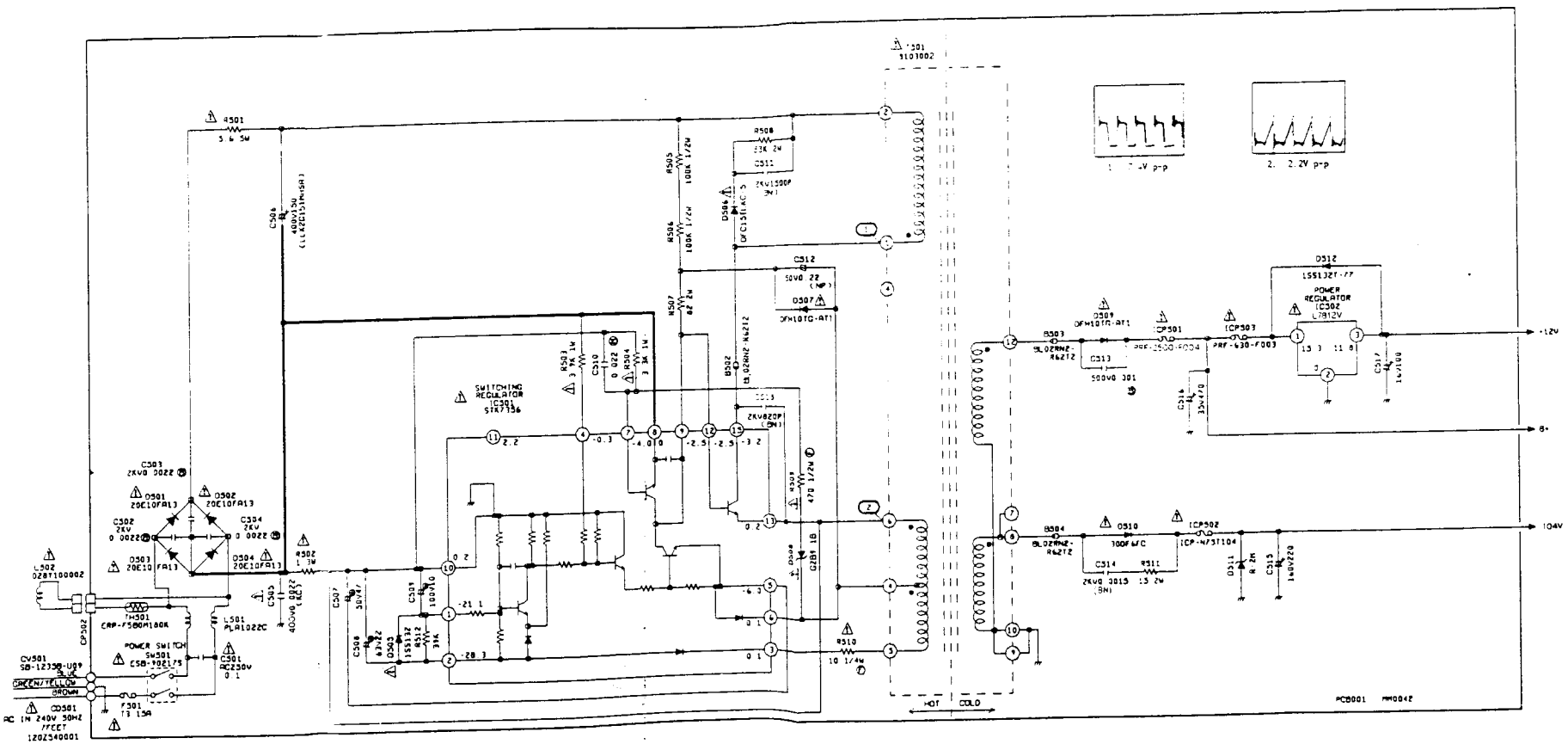
PC12 HRCD/O CHASSIS SCHEMATIC DIAGRAM



CHASSIS SCHEMATIC DIAGRAM

1-7206

PC12 HRCD/O CHASSIS SCHEMATIC DIAGRAM



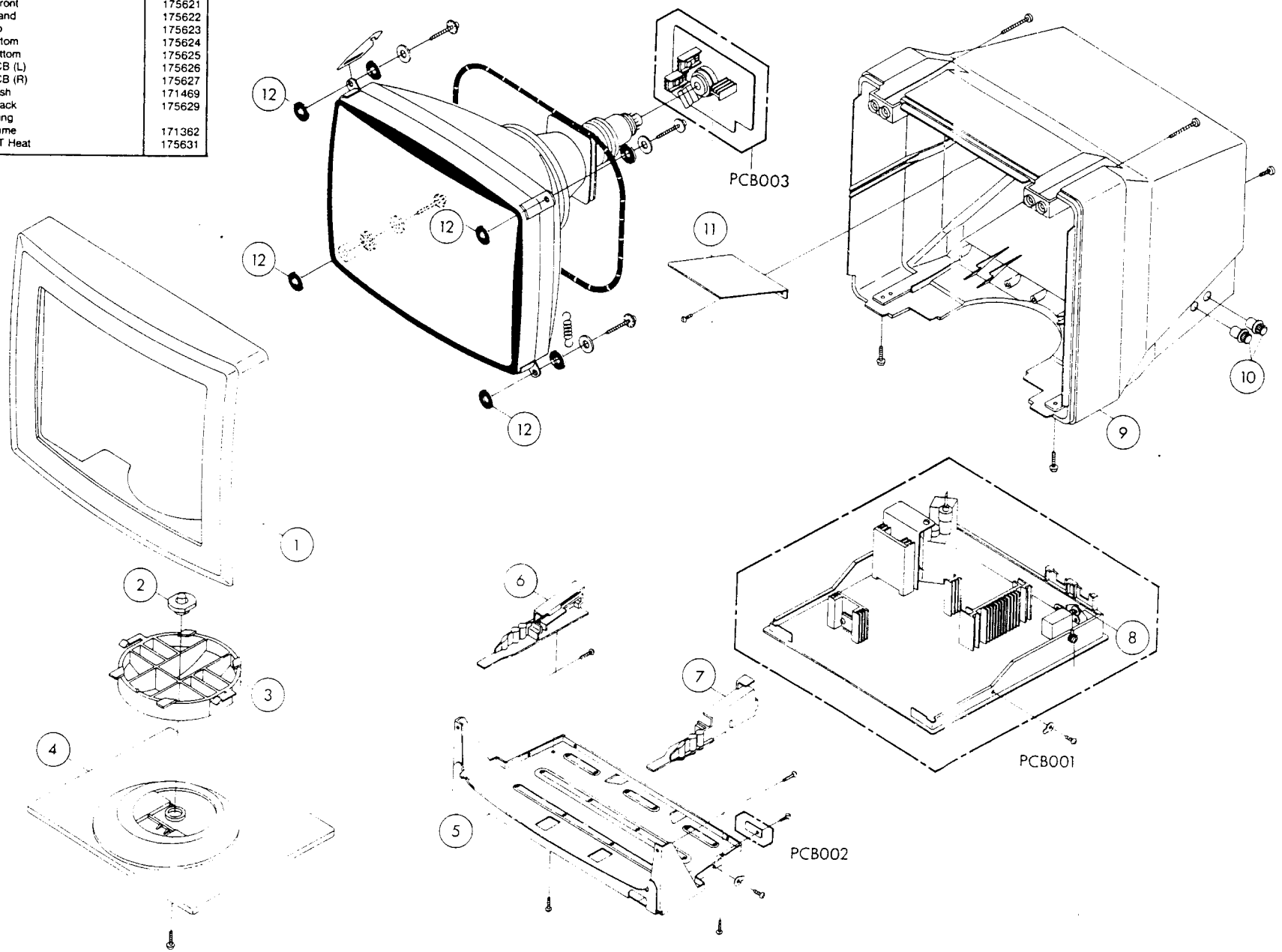
CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY

ATTENTION: LES PIECES REPEREES PAR UN ⚠ ETANT DANGEREUSES AU POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

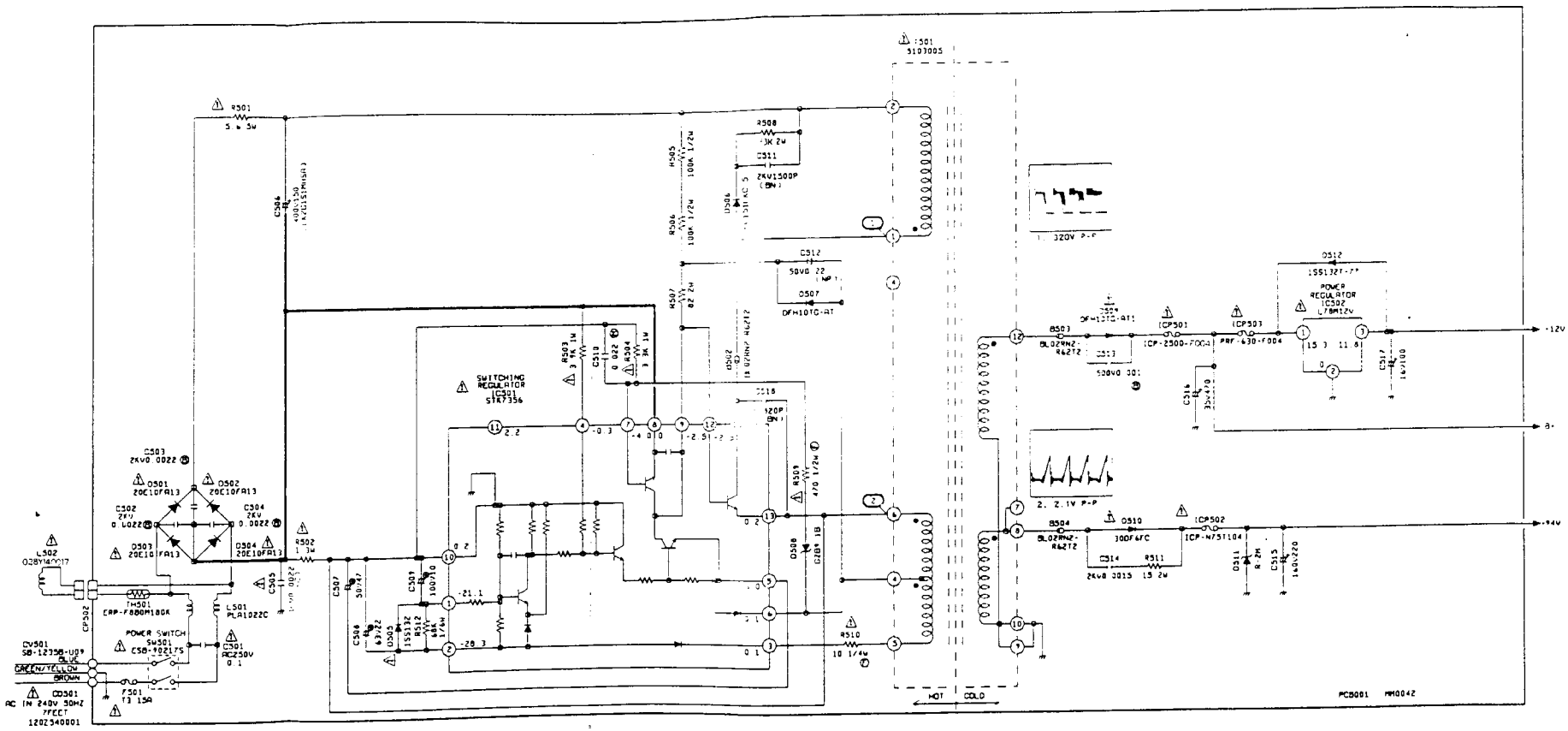
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

PC12HRCD/O CABINET PARTS LIST

Ref. No.	Description	Part No.
1	Cabinet Front	175621
2	Holder Stand	175622
3	Stand Top	175623
4	Stand Bottom	175624
5	Frame Bottom	175625
6	Holder PCB (L)	175626
7	Holder PCB (R)	175627
8	Button Push	171469
9	Cabinet Back	175629
10	Sheet Rating	
11	Knob Volume	171362
12	Cover CRT Heat	175631



PC14 HRCD/O CHASSIS SCHEMATIC DIAGRAM



CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY

ATTENTION: LES PIECES REPEREES PAR UN ⚠ ETANT DANGEREUSES DU POINT DE VUE SECURITE N'UTILISER QUE CELLES DECRITES DANS LA NOMENCLATURE DES PIECES

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

PC14 HRCD/O ELECTRICAL PARTS LIST

Ref. No.	Description	Part No.
I.C.s		
IC101	IC M51367P	175652
IC102	IC SN74LS86N	175935
IC501	IC STK7356	171478
IC502	IC L7812V-SA	177044
IC4001	IC LA7851	175936
IC4002	IC UPC1378H	170444/A
Transistors		
Q101-103	TR 2SD1207T-AE	170451
Q104, 105, 4001, 4002, 4011, 4012, 4014-4016, 4020	TR 2SC1815Y	170447
Q801, 803, 805	TR 2SC3790E-CD	175080
Q802, 804, 806	TR 2SC3468E-AE	175661
Q4003	TR 2SC2621E	1400116
Q4006	TR 2SA608SP	920113
Q4007	TR 2SD313F	175937
Q4008	TR 2SD2125	175938
Q4009, 4010	TR 2SA1015Y	170453
Q4013	2SC2120Y	170113
Diodes		
D101, 103, 106, 110, 111	DZ GZA6.8 YBT	175636
D102, 104, 105, 113, 115-121, 505, 512, 801-806, 4017, 4018, 4020, 4022, 4024, 4025, 4027-4032	D 1SS132T-77	171582
D107	DZ GZA3.9 YBT	175932
D109, 114	DZ GZA5.1 YBT	171498
D501-504	D 20E10FA13	171048
D506	D DFC15TL-KC5	171491
D507, 509	D DFH10TG-AT1	175
D508	DZ GZB9.1 B	171493
D510	D 30F6 FC	171494
D511	D Avalanch SR2-M	1400122
D4001	DZ GZA30 YBT	175933
D4003	DZ GA11 YBT	810339
D4004	D BB4-FC	1422116
D4005, 4006	DZ GZA12 YBT	175649
D4006, 4011, 4012	D DFD05TG-BT	171490
D4019	LED SLP-255B	175934
Coils		
L501	Coil Line Filter AC PLA1022C	171502
L502	Coil Degauss	175939
L801-803	Coil 10uH	175940
L804-806	Coil 48uF	175669
L4001	Coil Linearity	175941
L4002	Coil 4.7MH	171501
L4003	Coil Width	176404
L4005	Coil 5.6uH	175943
T501	Trans Switching 8103005	175944
T4001	Trans Hori Drive	175676
T4002	Trans Pin Cushion	175945

Circ. Ref.	Description	Part No.
Variable Resistors		
VR101	VROT 5kΩ + 5kΩ	175681
VR801	VRSF 500Ω R Drive	171699
VR802	VRSF 500Ω B Drive	171700
VR803	VRSF 500Ω R Blank	171696
VR804	VRSF 5kΩ G Blank	171697
VR805	VRSF 5kΩ B Blank	171697
VR4001	VRSF 10kΩ H Position	175687
VR4002	VRSF 6.8kΩ H Hold	175
VR4003	VRSF 1kΩ V Position	175
VR4004	VROT 200kΩ V Hold	175690
VR4005, 4006	VRSF 1kΩ V Size	175691
VR4007	VRSF 100Ω V Size	176472
VR4010	VRSF 3.3kΩ Sub Bright Con.	175693
VR4011	VRSF 6.8kΩ Pin Control	176473
P.C.B.s		
PCB001	Main PCB MM042-P2	175946
PCB002	LED PCB MS0110	
PCB003	CRT PCB MS0111	175
Miscellaneous		
B502-504	Ferrite Beads	176114
CD101	Cord D-Sub	175799
F501	Fuse 3.15A(T)	171531
FB4001	Trans Flyback 3F14002	175966
ICP501	IC Protector PRF-2500-F004	175715
ICP502	IC Protector IC-PN75T104	171057
ICP503	IC Protector PRF-630-F004	175104
TH501	Degauss Element	171533
V801	CRT M37-1087X/N/114	175

Description	Ref. No.	Part No.
Resistors (All 1/6W)		
82Ω	R153-155	152164
100Ω	R813, 4108	152166
150Ω	R810-812, 4025	152168
330Ω	R136, 137, 148, 149, 4032, 4033, 4078	152172
390Ω	R814-816	152
470Ω	R130-132, 817-819, 4037, 4082	152
560Ω	R107-109, 133, 134, 4029, 4030	152175
1kΩ	R129, 139-142, 150, 151, 4011, 4069, 4104	152179
1.2kΩ	R152	152180
1.5kΩ	R4107	152181
2.2kΩ	R122, 143, 4092	152183
2.7kΩ	R124, 4009	152184
3.9kΩ	R4090	152187
4.7kΩ	R4005	152188
6.8kΩ	R104-106, 145-147	152190
8.2kΩ	R123	152192
10kΩ	R4100	152194
12kΩ	R824-826, 4001	152195
18kΩ	R116, 118	152197
22kΩ	R4003, 4006, 4007, 4072, 4087, 4091	152198
33kΩ	R4010	152200
56kΩ	R4086	152204
68kΩ	R512, 4033	152205
82kΩ	R110-112, 4067, 4068	152207
100kΩ	R4106	152209
120kΩ	R4035	152210

Description	Circ. Ref.	Part No.
Resistors (All ¼W)		
150Ω	R4024	10036
180Ω	R4110	10038
560Ω	R4080	10050
680Ω	R4093	10052
820Ω	R4079, 4084	10054
1.2kΩ	R820	10063
2.2kΩ	R4003	10069
4.7kΩ	R4088	10077
5.6kΩ	R128	10079
10kΩ	R4101	10085
12kΩ	R4012	10087
15kΩ	R4013	10089
33kΩ	R4008	10097
39kΩ	R4034	10099
56kΩ	R4109	10103
68kΩ	R4089	10105
150kΩ	R4027	10113
220kΩ	R830	10117
Resistors ((All ½W)		
4.7Ω	R4045	176281
18Ω	R4085	176375
75Ω	R125-127	176376
120Ω	R101-103	176551
150Ω	R4113	176325
180Ω	R4051, 4053, 4103	176378
220Ω	R4081	176379
330Ω	R144, 4041, 4050	176327
470Ω	R827-829	176382
680Ω	R138	176329
3.9kΩ	R4022	176385
100kΩ	R505, 506	176332
1MΩ	R831	176387
Metal Film Resistors		
1Ω/3W	R502	176388
15Ω/2W	R511	176389
47Ω/2W	R4028	176390
680Ω/1/6W	R4044	176391
3.3kΩ/1/6W	R4020	176392
4.7kΩ/1/6W	R4046	176474
5.6kΩ/1/6W	R4102	176475
10kΩ/1/6W	R4026	176335
15kΩ/1/6W	R4043	176476
68kΩ/1/6W	R4018, 4019	176477
680kΩ	R4038	176478
Metal Oxide Resistors		
3.3Ω/1W	R4040	176479
3.9Ω/2W	R4039	176480
68Ω/2W	R4014	176398
82Ω/2W	R507	176399
100Ω/1W	R4052	176481
560Ω/3W	R4111	176482
680Ω/2W	R4049	176483
1kΩ/2W	R4099	176484
2.7kΩ/3W	R821-823	176485
3.3kΩ/1W	R504	176413
3.3kΩ/3W	R4023	176413
3.9kΩ	R503	176414
33kΩ/2W	R508	176417
Cement Resistors		
4.7Ω/5W	R4063	176418
5.6Ω/5W	R501	1422138

Description	Circ. Ref.	Part No.
Ceramic Capacitors		
22pF/500V	C4012	1400217
56pF	C4051	1400362
56pF/500V	C4027	176486
100pF	C4001	1422143
120pF	C804-806, 4062	150491
180pF	C807-809	150492
240pF	C4055	170428
270pF	C4003	150501
270pF/500V	C4042, 4045	176345
470pF	C4056	150496
470pF/2kV	C4052	176487
560pF/500V	C135	1400220
820pF	C4059	800209
820pF/2kV	C518	171643
1000pF/500V	C513, 4013	176428
1000pF/2kV	C814	176429
1200pF/500V	C4058	176488
1500pF/2kV	C511, 514	176430
2200pF	C505, 4074	176489
6800pF/500V	C4053	176431
0.0022µF/2kV	C502-504	1400223
0.01µF	C107, 115-117	810312
0.022µF	C136	21027
Electrolytic Capacitors		
0.1µF/50V	C801-803, 4073	150908
0.22µF/50V	C512	800211
0.33µF/50V	C4063	176313
0.47µF/50V	C122	151641
1µF/50V	C4005, 4006, 4021, 4022	20062
1µF/160V	C4014	1422151
1µF/250V	C4037	1422152
2.2µF/50V	C104-106	175144
4.7µF/50V	C4011, 4025, 4060, 4068	1400240
10µF/25V	C4017, 4054, 4070	20037
10µF/100V	C509	176421
22µF/25V	C127, 129, 131	176432
22µF/63V	C508	176433
22µF/100V	C4010	176574
22µF/200V	C813, 4043	151640
33µF/25V	C4065	170421
47µF/25V	C121, 126, 128, 130, 4057	176423
47µF/50V	C507	170421
100µF/16V	C517	20028
100µF/25V	C118-120, 4035, 4036, 4066	800370
100µF/50V	C4030	176320
150µF/400V	C506	171450
220µF/16V	C125, 4018	20029
220µF/160V	C515	171651
330µF/16V	C108-110, 114, 816, 4050, 4064	800371
470µF/35V	C516	171653
1000µF/35V	C4044	1422159
2200µF/16V	C4009	176425
2200µF/35V	C4034	1422160
Metal Plastic Capacitors		
0.1µF	C4016	171658
0.1µF/250V AC	C501	176467
Polypropylene Capacitors		
0.001µF	C4002	176364
0.0033µF	C4024	176492
0.022µF	C510, 4007, 4061	176493
0.068µF	C4072	176494
0.15µF	C4033, 4071	176495
Plastic Capacitors		
0.0027µF	C4008	176369
0.0033µF	C4004	176370
Metal Polypropylene Capacitors		
1800pF/1.5kV	C4041	176496
2200pF/1.5kV	C4040	176497
0.1µF/200V	C4046	176498
0.56µF/200V	C4038	176499
Tantalum Capacitors		
1µF/16V	C4023	176371

PC14 CD/O MONITOR

PC14 CD/O ALIGNMENT INSTRUCTIONS

Step	FUNCTION	SIGNAL IN	SIGNAL OUT	METHOD	REMARKS
1.	H. Hold Adjustment.	None	Monitor Screen. Free Run Condition.	Connect A Freq. Counter to heater circuit Pin. 9. of CRT socket. Adjust VR4002 to read line freq. 31.46kHz.	
2.	Focus Adjustment.	VGA Test Disc.	On Screen.	Select Focus Pattern. Use 5 key. Adjust VR on the F.B.T. so that point A is seen clearly.	Refer to Fig. 1.
3.	Sub Brightness Adjustment.	VGA Test Disc.	On Screen.	Select θ Pattern (480 line mode). Adjust VR4010 so that the raster in the background of the screen lightens up.	Refer to Fig. 2.
4	V.Pos. H.Pos. V.Size. H.Size. Adjustment.	VGA Test Disc.	On Screen.	Select θ Pattern (480 line mode). Adjust picture in centre position with VR4003 and VR4001. 1. Adjust VR4007 to get A, I, B, E, K, and F points to 10mm ± 2mm. 480 line mode. (* Top & Bottom Borders). 2. Adjust VR4006 to get A, I, B, E, K, and F points to 10mm ± 2mm. 350 line mode (* Top & Bottom Borders). 3. Adjust VR4005 to get A, I, B, E, K, and F points to 10mm ± 2mm. 200 line mode. (* Top & Bottom Borders). 4. Adjust VR4003 to get C, J, D, G, L, and H points to 15mm ± 2mm.	Refer to Fig. 2.
5	DIN Adjustment	VGA Test Disc.	On Screen.	Select ∂ Pattern. Adjust VR4011 to get A A, B & B points within 1mm.	Refer to Fig. 3.
6	Colour Purity. Static Dynamic Convergence. Black & White Tracking	Adjustment Information Can Be Obtained On Special Request			

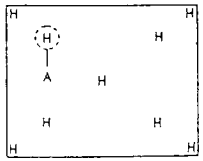


Fig. 1

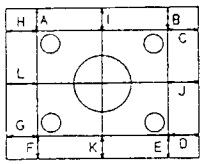
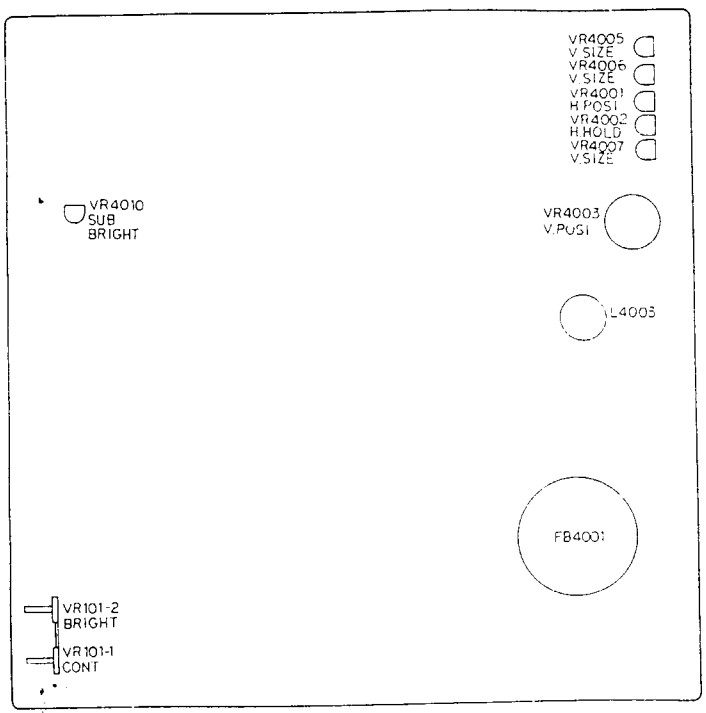
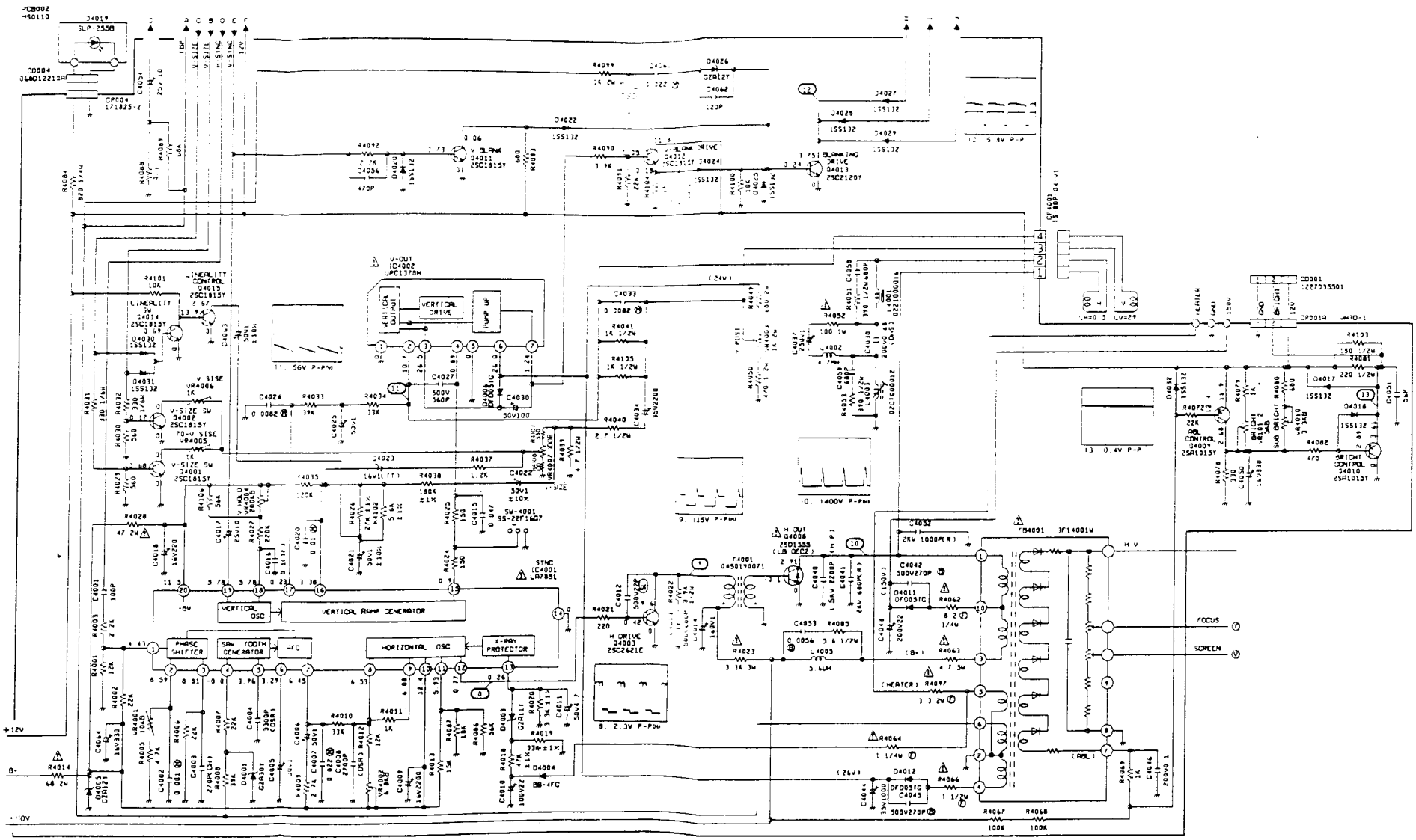


Fig. 2



PC14 CD/O CHASSIS SCHEMATIC DIAGRAM

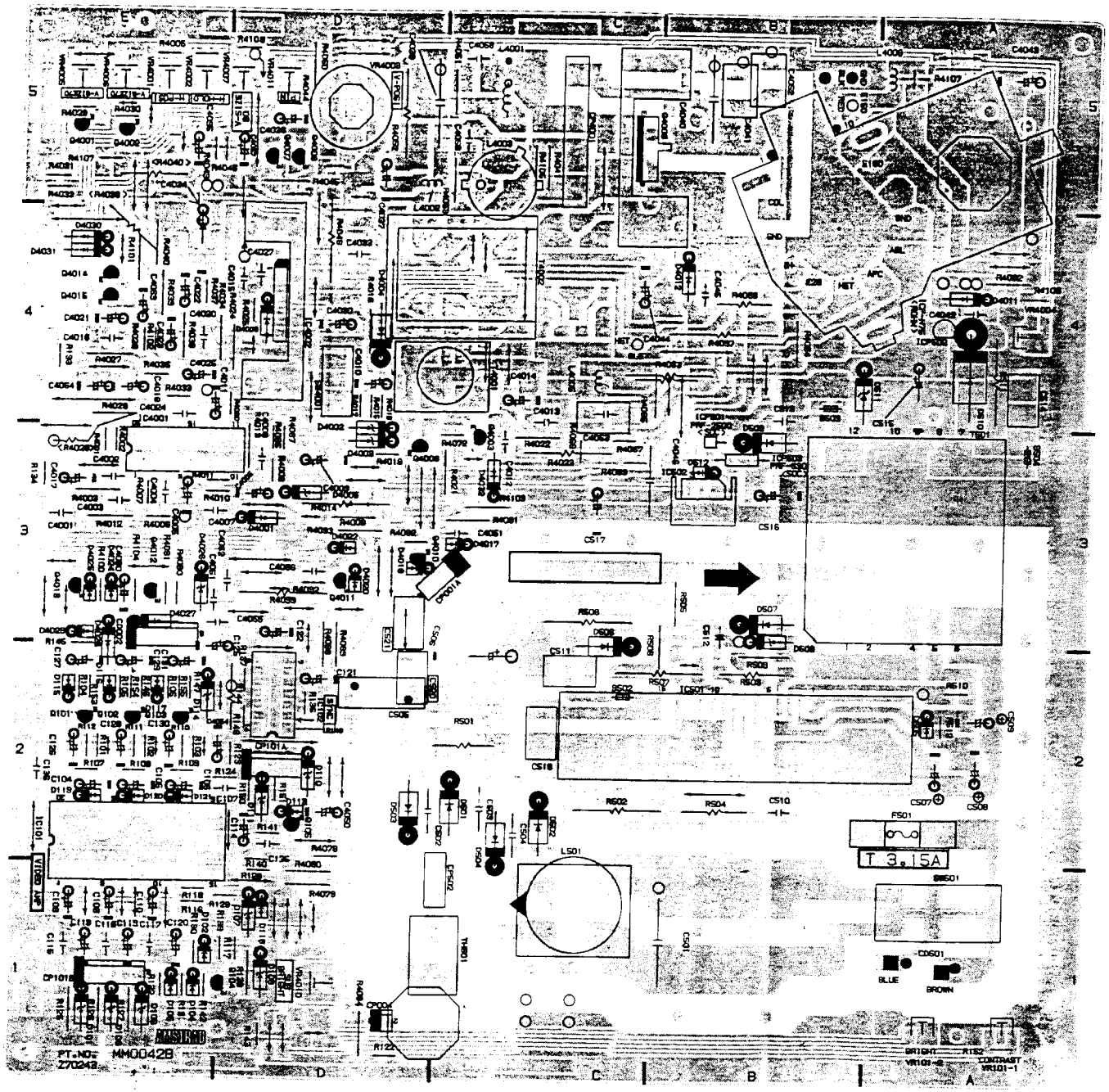


CAUTION: SINCE THESE PARTS MARKED OF ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY

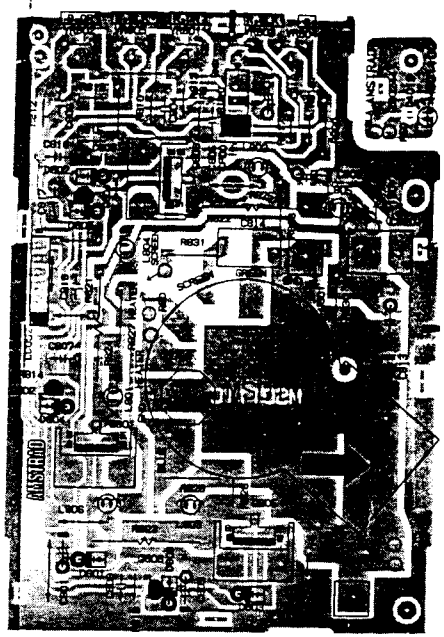
ATTENTION: LES PIECES REPEREES PAR UN ⚠ ETANT DANGEREUSES AU POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

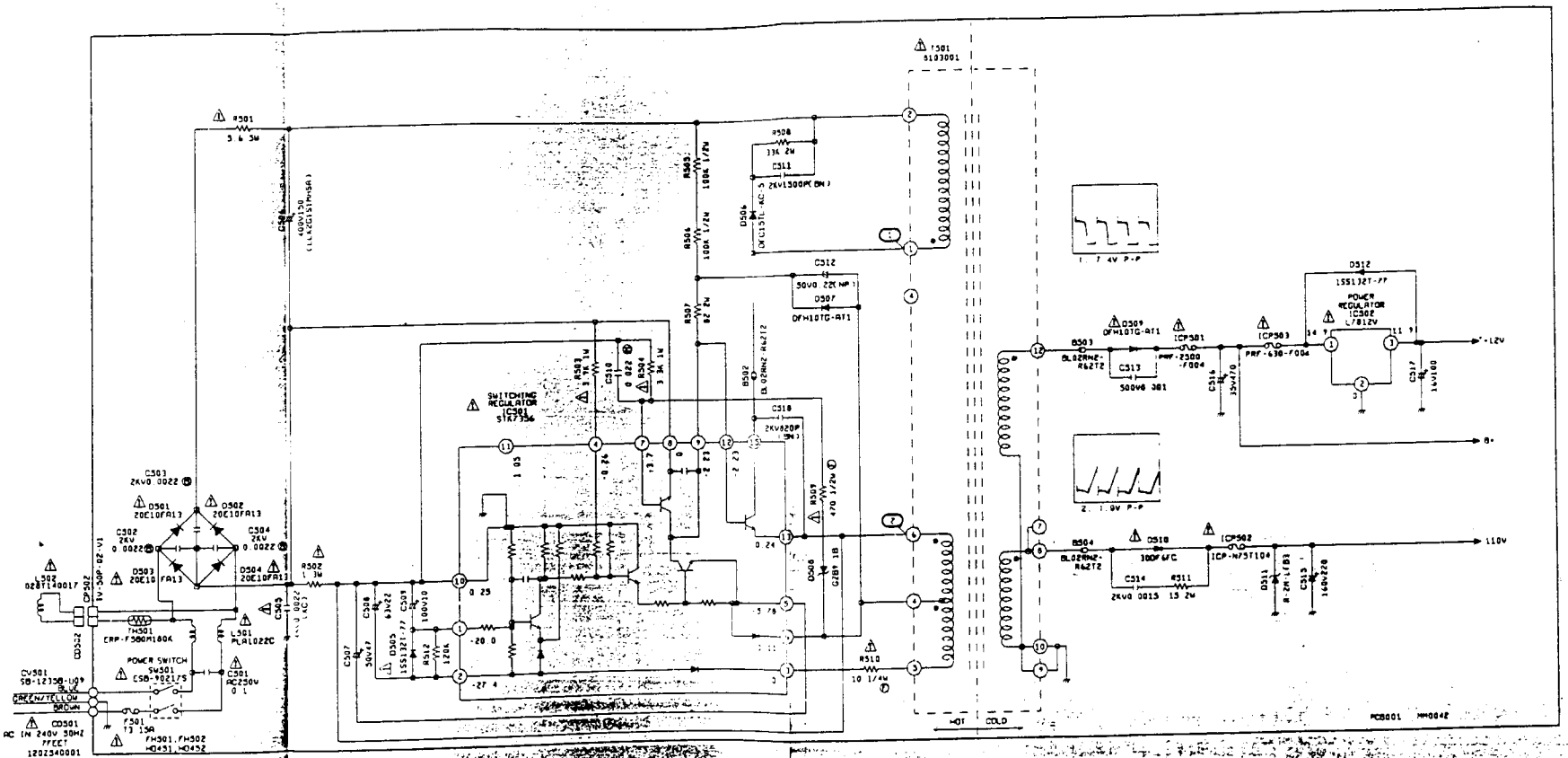
PC14 CD/O MONITOR PCB



PC14 CD/O CRT/LED PCB



PC14 CD/O CHASSIS SCHEMATIC DIAGRAM

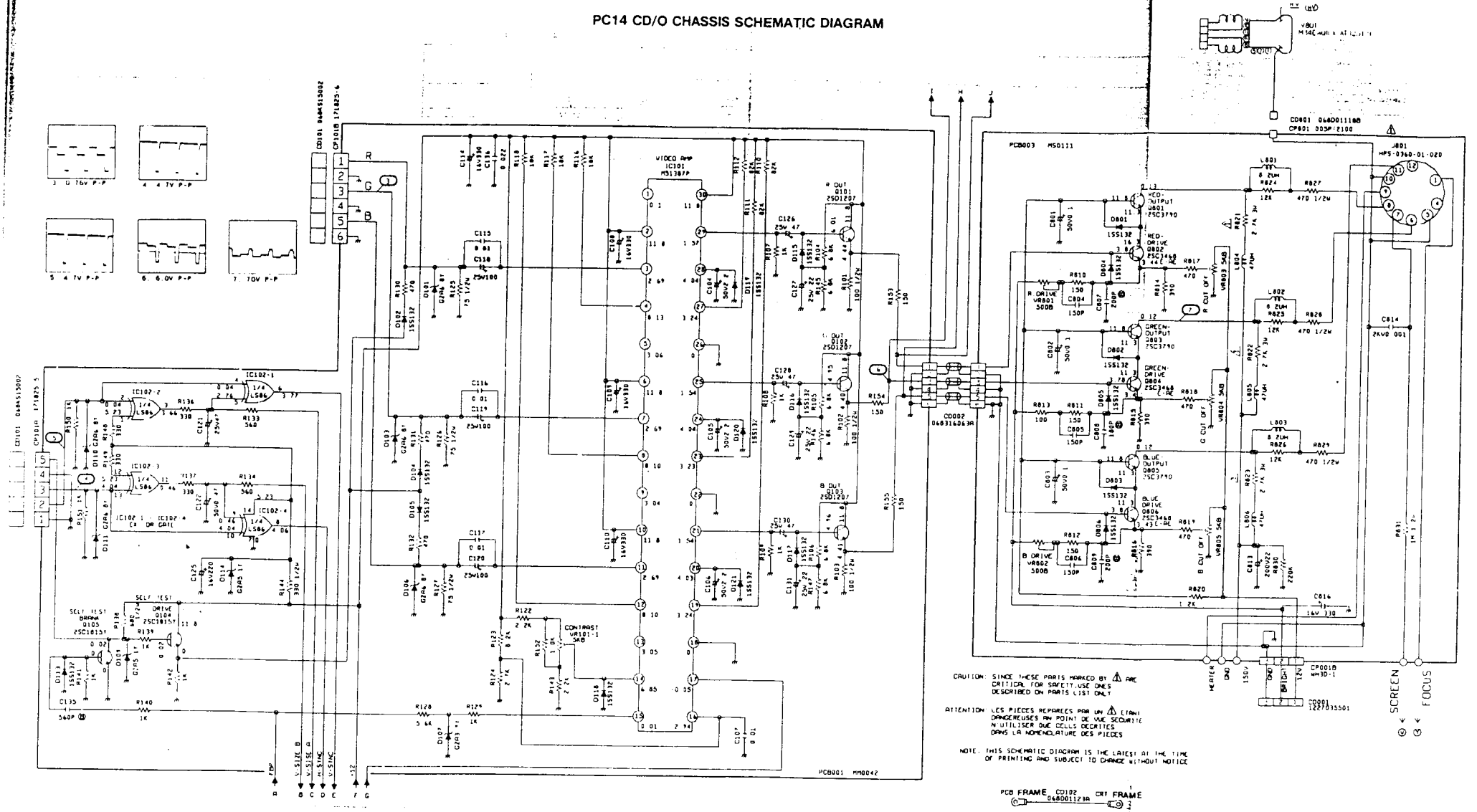


CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY

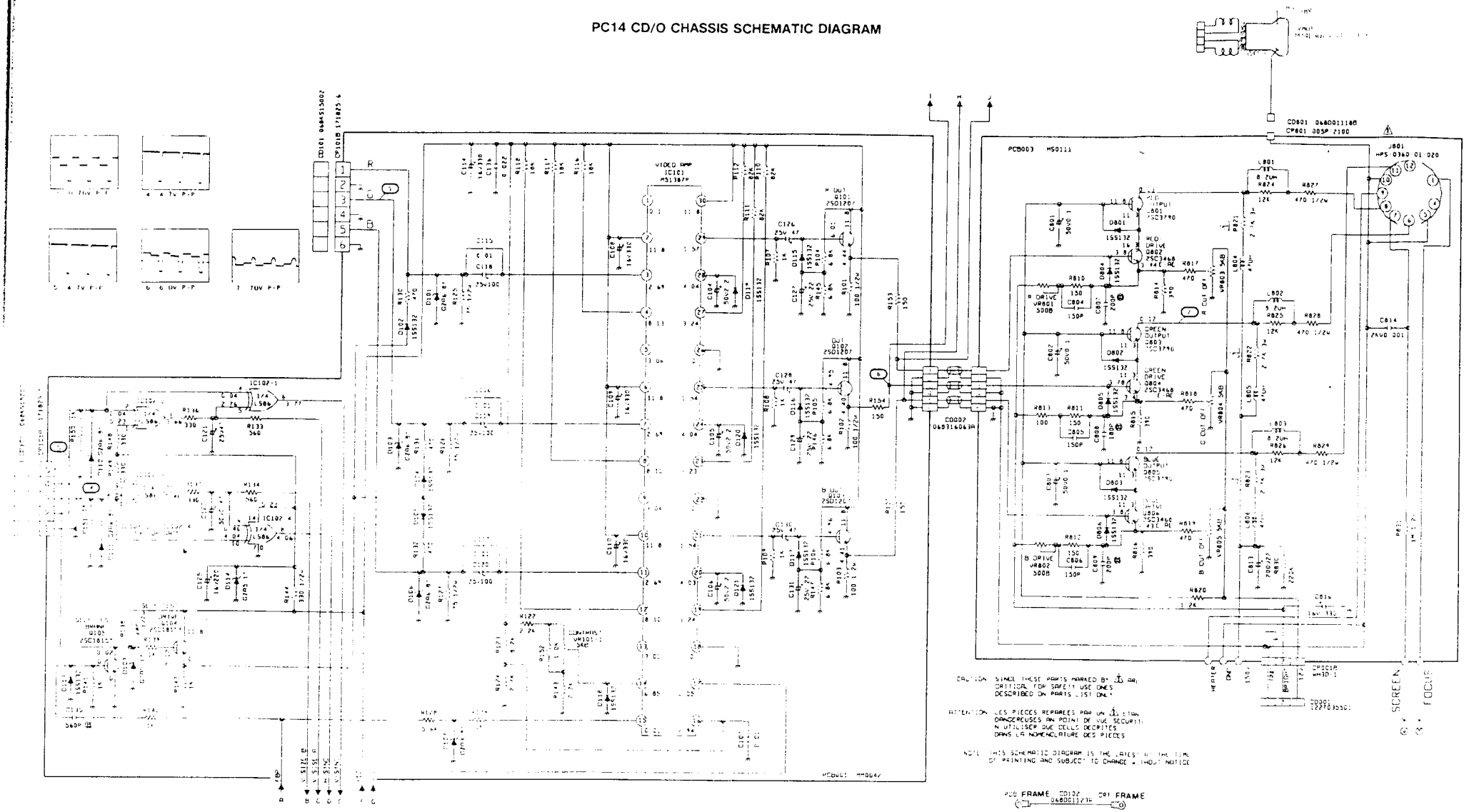
ATTENTION: LES PIECES REPEREES PAR UN ⚠ ETANT DANGEREUSES EN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

PC14 CD/O CHASSIS SCHEMATIC DIAGRAM



PC14 CD/O CHASSIS SCHEMATIC DIAGRAM



PC14 CD/0 ELECTRICAL PARTS LIST

Ref. No.	Description	Part No.
I.C.s		
IC101	IC M51387P	175652
IC102	IC SN74LS85N	175935
IC501	IC STK7356	171478
IC502	IC L7812VSA	177044
IC4001	IC LA7851	175936
IC4002	IC UPC1378H	170444/A
Transistors		
Q101-193	TR 2SD1207T	170451
Q104, 105, 4001, 4002, 4011, 4012, 4014, 4015	TR 2SC1815Y	170447
Q801, 803, 805	TR 2SC3790E-CD	175080
Q802, 804, 806	TR 2SC3468E-AE	175661
Q4003	TR 2SC2621E	1400116
Q4008	TR 2SD1555	176402
Q4009, 4010	TR 2SA1015Y	170453
Q4013	TR 2SC2120Y	170113
Diodes		
D101, 103, 106, 110, 111	DZ GZA6.8 YBT	175636
D102, 104, 105, 113, 115-121, 505, 512, 801-806, 4017, 4018, 4020, 4022, 4024, 4025 4027-4032	D 1SS132T-77	171582
D107	DZ GZA3.9 YBT	175932
D109, 114	DZ GZA5.1 YBT	171498
D501-504	D 20E10FA13	171048
D506	D DFC15TL-KC5	171491
D507, 509	D DFH10TG-AT	175971
D508	DZ GZB9.1 B	171493
D510	D 30DFS FC	171494
D511	D Avalanch SR2-M	1400122
D4001	DZ GZA30 YBT	175933
D4003	DZ GZA11 YBT	810339
D4004	D BB4-FC	1422116
D4005, 4026	D GZA12 YBT	175649
D4006, 4011, 4012	D DFD05TG-BT	171490
D4019	LED SLP-255B	175934
Coils		
L501	Coil Line Filter AC PLA1022C	171502
L502	Coil Degauss	175939
L801-803	Coil 8.2uH	176403
L804-806	Coil 47uH	175669
L4001	Coil Linearity 210000016	175941
L4002	Coil 4.7mH	171501
L4003	Coil Width CT000016	176404
L4005	Coil 5.6mH	175943
T501	Trans switching 8103001	176405
T4001	Trans Hori Drive	175676
Variable Resistors		
VR101	VROT 5kΩ + 5kΩ	175681
VR801	VRSF 500Ω R Drive	171699
VR802	VRSF 500Ω B Drive	171700
VR803	VRSF 5kΩ R Cut Off	171696
VR804	VRSF 5kΩ G Cut Off	171697
VR805	VRSF 5kΩ B Cut Off	171698
VR4001	VRSF 10kΩ	171687
VR4002	VRSF 6.8kΩ	171688
VR4003	VRSF 1kΩ/2W V Posi	171689
VR4004	VROT 200kΩ	171690
VR4005, 4006	VRSF 1kΩ	171691
VR4007	VRSF 100Ω V Size	175908
VR4010	VRSF 3.3kΩ	175693

Ref. No.	Description	Part No.
P.C.B.s		
PCB001	Main PCB MM0042-P2	176409
PCB002	LED PCB MS0110	
PCB003	CRT PCB MS0111	1759[illegible]
Miscellaneous		
B502-504	Ferrite Beads	1761[illegible]
CD101	Cord D-Sub	175700
F501	Fuse 3.15A(T)	171531
FB4001	Flyback Transformer 3F14001W	176407
ICP501	IC Protector PRF-2500-F004	175715
ICP502	IC Protector N75T104	171057
ICP503	IC Protector PRF-630-F004	175104
TH501	Degauss Element	171533
V801	CRT M34EAQ10X/AT120/92	176403
J801	CRT Socket	1756[illegible]
SW501	Switch Power On/Off	1715[illegible]
SW4001	Switch Slide Service Normal	171515

Description	Ref. No.	Part No.
Resistors (All 1/6W)		
100Ω	R813, 4108	152166
150Ω	R153-155, 810-812, 4025	152168
220Ω	R4081	152170
330Ω	R136, 137, 148, 149, 4031, 4032, 4078, 4107	152172
390Ω	R814-816	152[illegible]
470Ω	R130-132, 817-819, 4082	152[illegible]
560Ω	R133, 134, 4029, 4030	152175
680Ω	R4080	152176
1kΩ	R107-109, 129, 139-142, 150-152, 4011, 4069, 4079, 4104	152179
1.2kΩ	R4037	152180
2.2kΩ	R122, 143, 4092	152183
2.7kΩ	R124, 4009	152184
3.9kΩ	R4090	152187
4.7kΩ	R4005	152188
5.6kΩ	R128	152189
6.8kΩ	R104-106, 145-147	152190
8.2kΩ	R123	152192
10kΩ	R4100	152194
12kΩ	R824-826, 4001	152195
18kΩ	R116-118, 4087	152197
22kΩ	R4002, 4006, 4007, 4072, 4091	152198
33kΩ	R4010	152200
39kΩ	R4033	152201
56kΩ	R4086, 4106	152204
82kΩ	R110-112	152207
100kΩ	R4067, 4068	152210
120kΩ	R512, 4035	152211
Resistors (All ¼W)		
150Ω	R4024	10036
220Ω	R4021	10040
680Ω	R4093	10052
820Ω	R4084	10054
1.2kΩ	R820	10063
1.5kΩ	R4113	10065
2.2kΩ	R4003	10069
4.7kΩ	R4088	10077
10kΩ	R4101	10085
12kΩ	R4012	10087
15kΩ	R4013	10089
33kΩ	R4034	10097
39kΩ	R4008	10099
68kΩ	R4089	10105
220kΩ	R830, 4027	10117

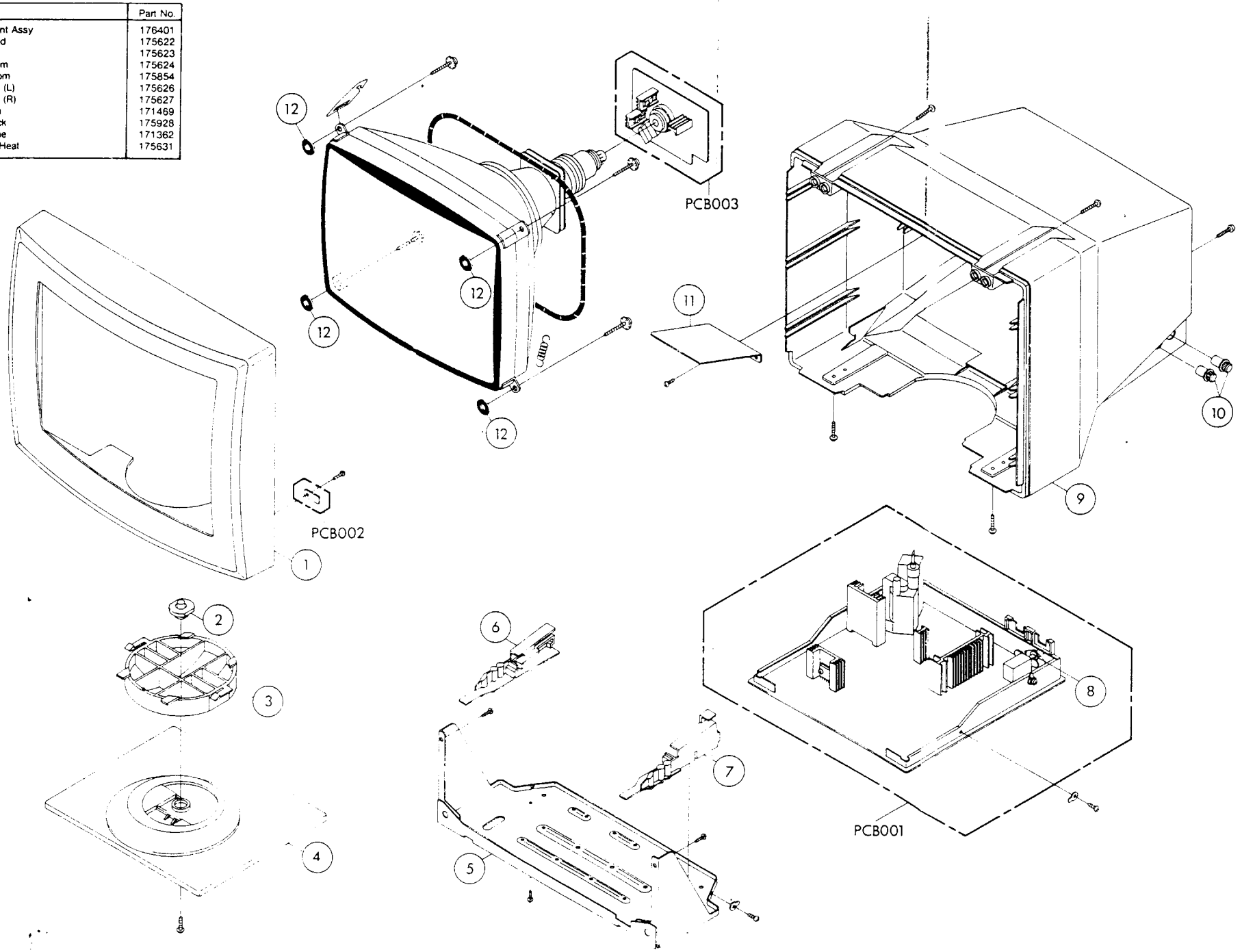
Description	Dirc. Ref.	Part No.
Resistors (All ½W)		
2.7Ω	R4040	176281
4.7Ω	R4039	176374
4.6Ω	R4085	176375
75Ω	R125-127	176376
100Ω	R101-103	176377
180Ω	R4103	176378
330Ω	R144	176380
390Ω	R4051, 4053	176381
470Ω	R827-829, 4050	176382
680Ω	R138	176383
1kΩ	R4041, 4105	10062
3.9kΩ	R4022	176385
100kΩ	R505, 506	176386
1MΩ	R831	176387
Metal Film Resistors		
1Ω/3W	R502	176388
15Ω/2W	R511	176389
47Ω/2W	R4028	176390
3.3kΩ/1/6W	R4020	176392
5.6kΩ/1/6W	R4102	176452
27kΩ/1/6W	R4026	176453
33kΩ/1/6W	R4019	176395
47kΩ/1/6W	R4018	176454
180kΩ/1/6W	R4038	176455
Metal Oxide Resistors		
68Ω/2W	R4014	176398
82Ω/2W	R507	176399
100Ω/1W	R4052	176410
680Ω/2W	R4049	176411
1kΩ/2W	R4099	10062
2.7kΩ	R821-823	176456
3.3kΩ/1W	R504	176413
3.3kω/3W	R4023	176457
3.9kΩ/1W	R503	176414
33kΩ/2W	R508	176417
Cement Resistors		
4.7Ω/5W	R4063	176418
5.6Ω/5W	R501	1422138
Fuse Resistors		
1Ω/¼W	R4064	809252
1Ω/½W	R4066	171639
3.3Ω/2W	R4097	176459
8.2Ω/½W	R4062	176420
10Ω/¼W	R510	809256
470Ω/½W	R509	176422
Ceramic Capacitors All Capacitors are 50V working unless stated otherwise.		
22pF/500V	C4012	1400217
56pF	C4051	1400362
100pF	C4001	1422143
150pF	C804-806	176540
180pF	C808	150492
200pF	C807, 809	176352
270pF	C4003, 4042, 4045	150501
470pF	C4056	150496
560pF/500V	C135, 4027	1400220
680pF	C4058, 4059	1400213
680pF/500V	C4013	176462
680pF/2kV	C4041	176463
820pF/2kV	C518	171643
1000pF/500V	C513	176428
1000pF/2kV	C814, 4052	176429
1500pF/2kV	C511, 514	176430
2200pF	C505	176304
5600pF/500V	C4053	175465
0.01uF	C107, 115-117	810312
0.022uF	C136	21027
0.022uF/2kV	C502-504	176466

Description	Circ. Ref.	Part
Electrolytic Capacitors		
0.1uF/50V	C801-803	150
0.22uF/50V	C512	800
0.47uF/50V	C122	151
1uF/50V	C4005, 4006, 4021, 4022, 4025, 4060, 4063	20
1uF/160V	C4014	1422
1uF/250V	C4037	1422
2.2uF/50V	C104-106	175
4.7uF/50V	C4011	1400
10uF/25V	C4017, 4054	20
10uF/100V	C509	176
22uF/25V	C127, 129, 131	201
22uF/63V	C508	170
22uF/100V	C4010	176
22uF/200V	C813, 4043	176
47uF/25V	C121, 126, 128, 130	151
47uF/50V	C507	170
100uF/16V	C517	20
100uF/25V	C118-120	800
100uF/50V	C4030	176
150uF/400V	C506	171
220uF/16V	C125, 4018	20
220uF/160V	C515	171
330uF/16V	C108-110, 114, 816, 4050, 4064	800
470uF/35V	C516	171
1000uF/35V	C4044	1422
2200uF/16V	C4009	176
2200uF/35V	C4034	1422
Metal Plastic Capacitors		
0.1uF/50V	C4016	171
0.1uF/250V AC	C501	176
Polyester Capacitors		
0.0082uF	C4024	170
0.0082uF/100V	C4033	176
0.1uF	C4002, 4020	1409
0.022uF	C510, 4007, 4061	1409
0.047uF	C4015	1409
Plastic Capacitors		
0.0027uF	C4008	176
0.0033uF	C4004	176
Tantalum Capacitors		
1uF/16V	C4023	176
Metal Polyester Capacitors		
2200pF/1.5kV	C4040	176
0.1uF/200V	C4046	176
0.68uF/200V	C4038	176

PC14 CD/0 CABINET PARTS LIST

Ref. No.	Description	Part No.
1	Cabinet Front Assy	176401
2	Holder Stand	175622
3	Stand Top	175623
4	Stand Bottom	175624
5	Frame Bottom	175854
6	Holder PCB (L)	175626
7	Holder PCB (R)	175627
8	Button Push	171469
9	Cabinet Back	175928
10	Knob Volume	171362
11	Cover CRT Heat	175631

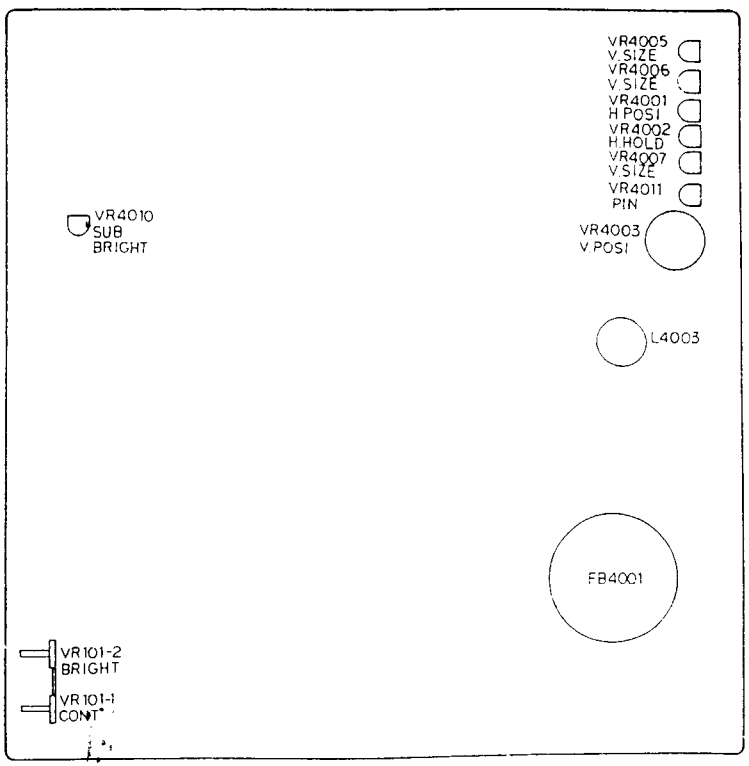
PC14 CD/O CABINET EXPLODED VIEW



PC14 HRCD/O MONITOR

PC14 HRCD/O ALIGNMENT INSTRUCTIONS

	FUNCTION	SIGNAL IN	SIGNAL OUT	METHOD	REMARKS
1.	H. Hold Adjustment.	None	Monitor Screen. Free Run Condition.	Connect A Freq. Counter to heater circuit Pin. 9. of CRT socket. Adjust VR4002 to read line freq. 31.46kHz.	
2.	Focus Adjustment.	VGA Test Disc.	On Screen.	Select Focus Pattern. Use 5 key. Adjust VR on the F.B.T. so that point A is seen clearly.	Refer to Fig. 1.
3.	Sub Brightness Adjustment.	VGA Test Disc.	On Screen.	Select 0 Pattern (480 line mode). Adjust VR4010 so that the raster in the background of the screen lightens up.	Refer to Fig. 2.
4	V.Pos. H.Pos. V.Size. H.Size. Adjustment.	VGA Test Disc.	On Screen.	Select 0 Pattern (480 line mode). Adjust picture in centre position with VR4003 and VR4001. 1. Adjust VR4007 to get A, I, B, E, K, and F points to 10mm ± 2mm. 480 line mode. (* Top & Bottom Borders). 2. Adjust VR4006 to get A, I, B, E, K, and F points to 10mm ± 2mm, 350 line mode (* Top & Bottom Borders). 3. Adjust VR4005 to get A, I, B, E, K, and F points to 10mm ± 2mm. 200 line mode. (* Top & Bottom Borders). 4. Adjust VR4003 to get C, J, D, G, L, and H points to 15mm ± 2mm.	Refer to Fig. 2.
5	DIN Adjustment	VGA Test Disc.	On Screen.	Select 0 Pattern. Adjust VR4011 to get A A, B & B points within 1mm.	Refer to Fig. 3.
6	Colour Purity. Static. Dynamic Convergence. Black & White Tracking.	Adjustment Information Can Be Obtained On Special Request.			



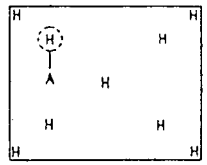


Fig. 1

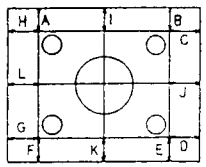


Fig. 2

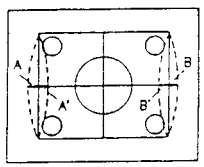
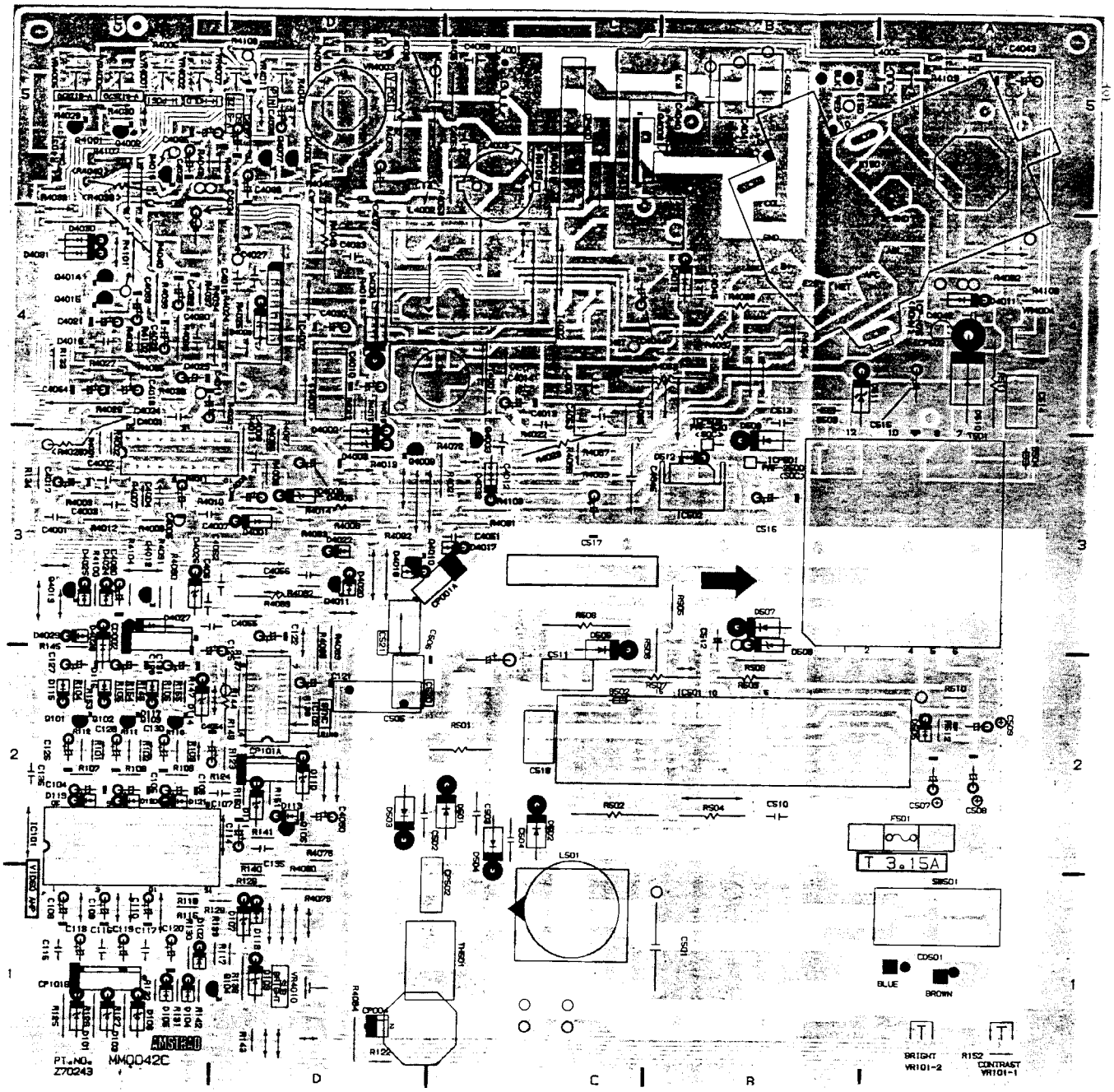
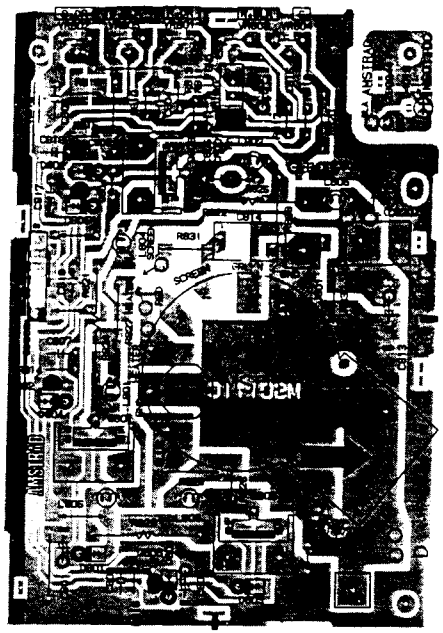


Fig. 3

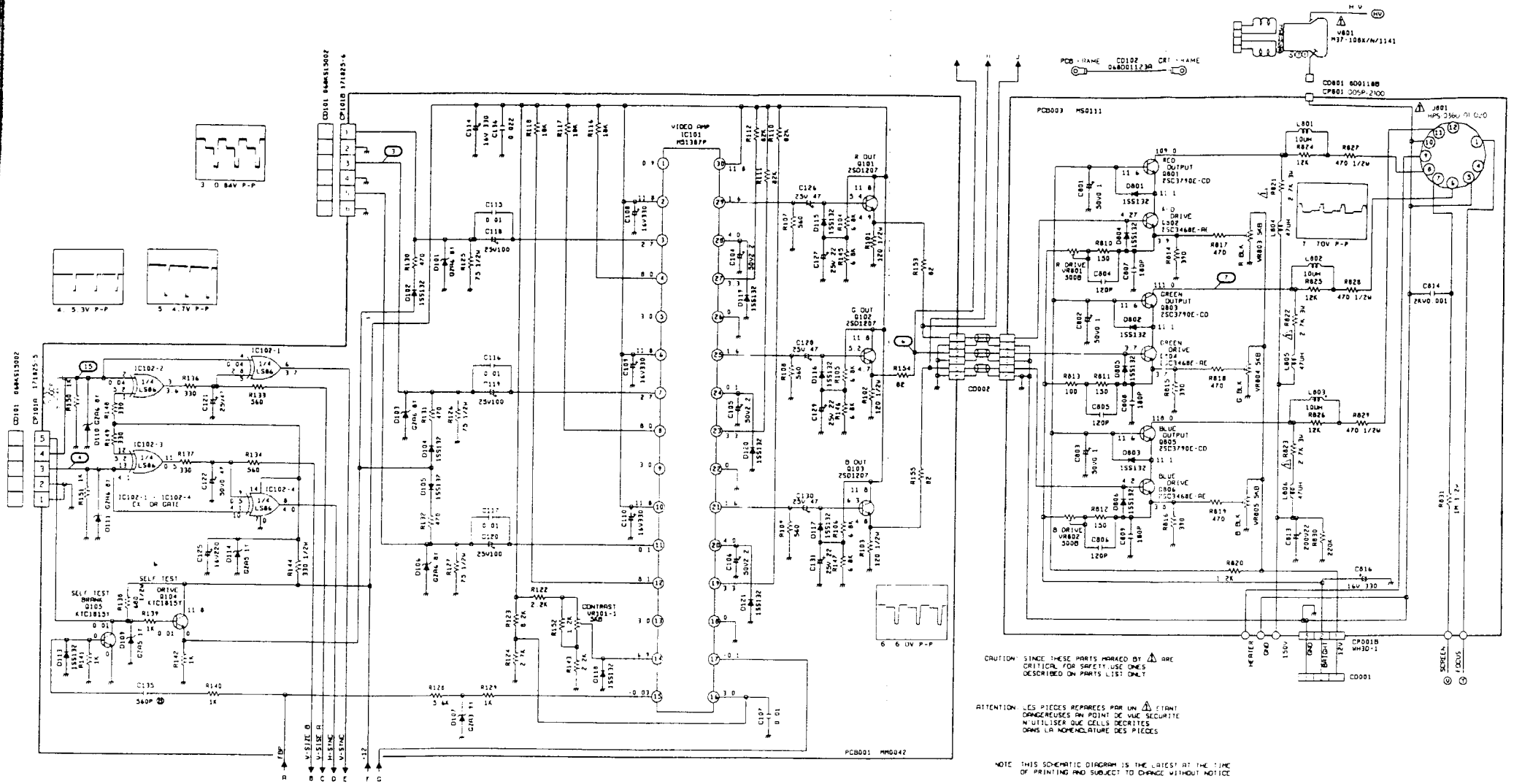
PC14 HRCD/O MONITOR PCB



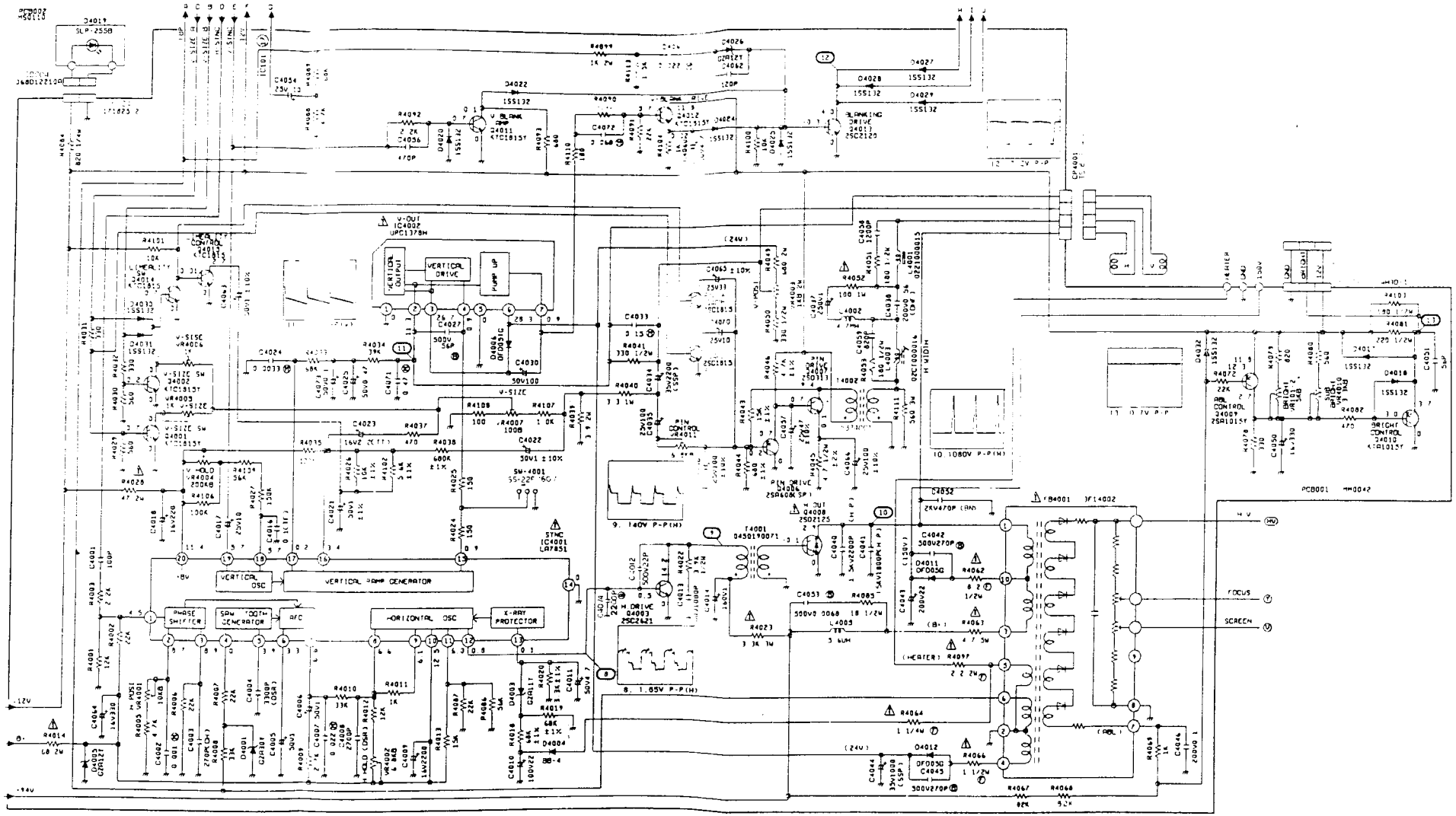
PC14 HRCD/O CRT/LED PCB



PC14 HRCD/O CHASSIS SCHEMATIC DIAGRAM



PC14 HRCD/O CHASSIS SCHEMATIC DIAGRAM



CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY

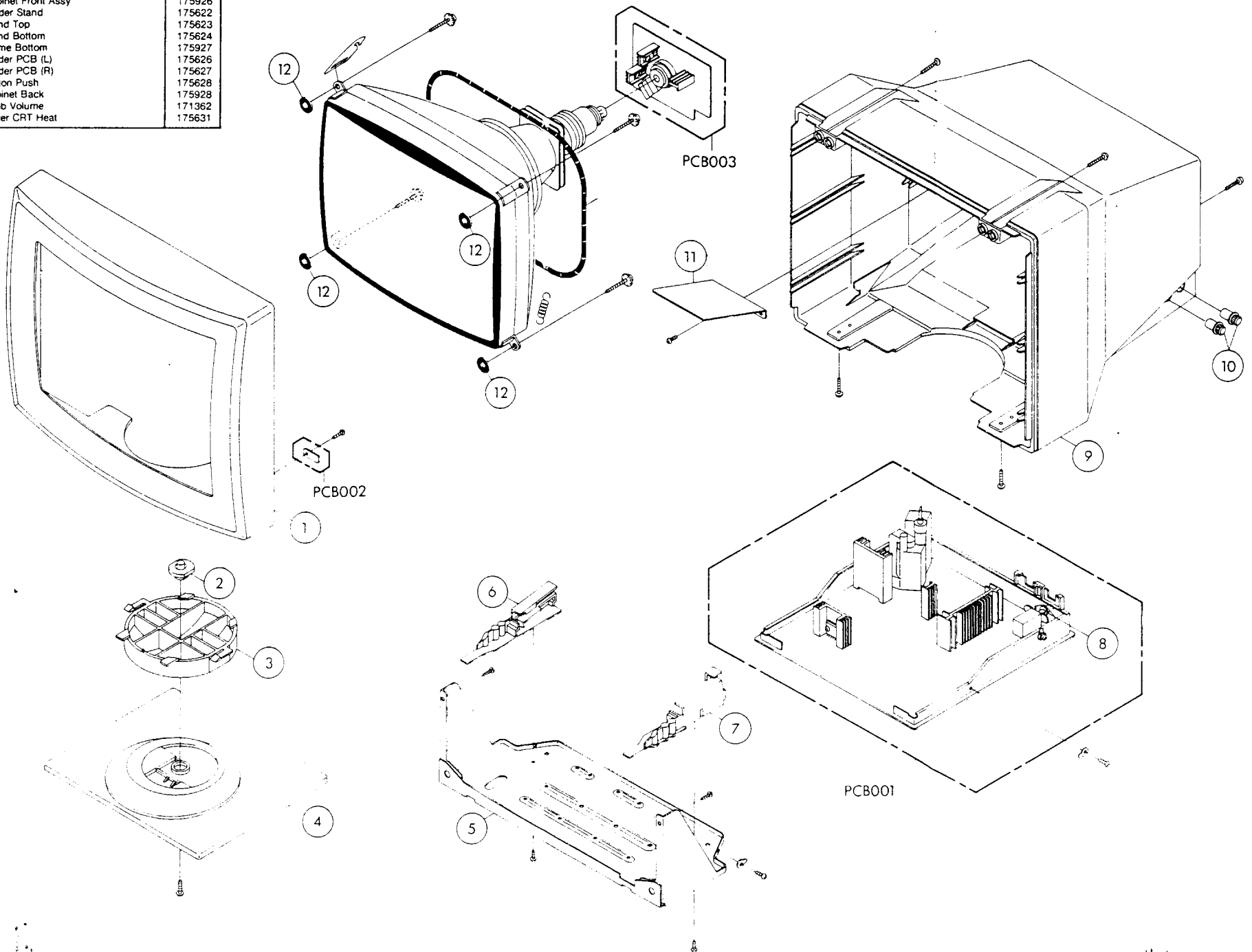
ATTENTION: LES PIECES REPEREES PAR UN ⚠ ETANT DANGEREUSES AU POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

PC14 HRCD/O CABINET PARTS LIST

Ref. No.	Description	Part No.
1	Cabinet Front Assy	175926
2	Holder Stand	175622
3	Stand Top	175623
4	Stand Bottom	175624
5	Frame Bottom	175927
6	Holder PCB (L)	175626
7	Holder PCB (R)	175627
8	Button Push	175628
9	Cabinet Back	175928
10	Knob Volume	171362
11	Cover CRT Heat	175631

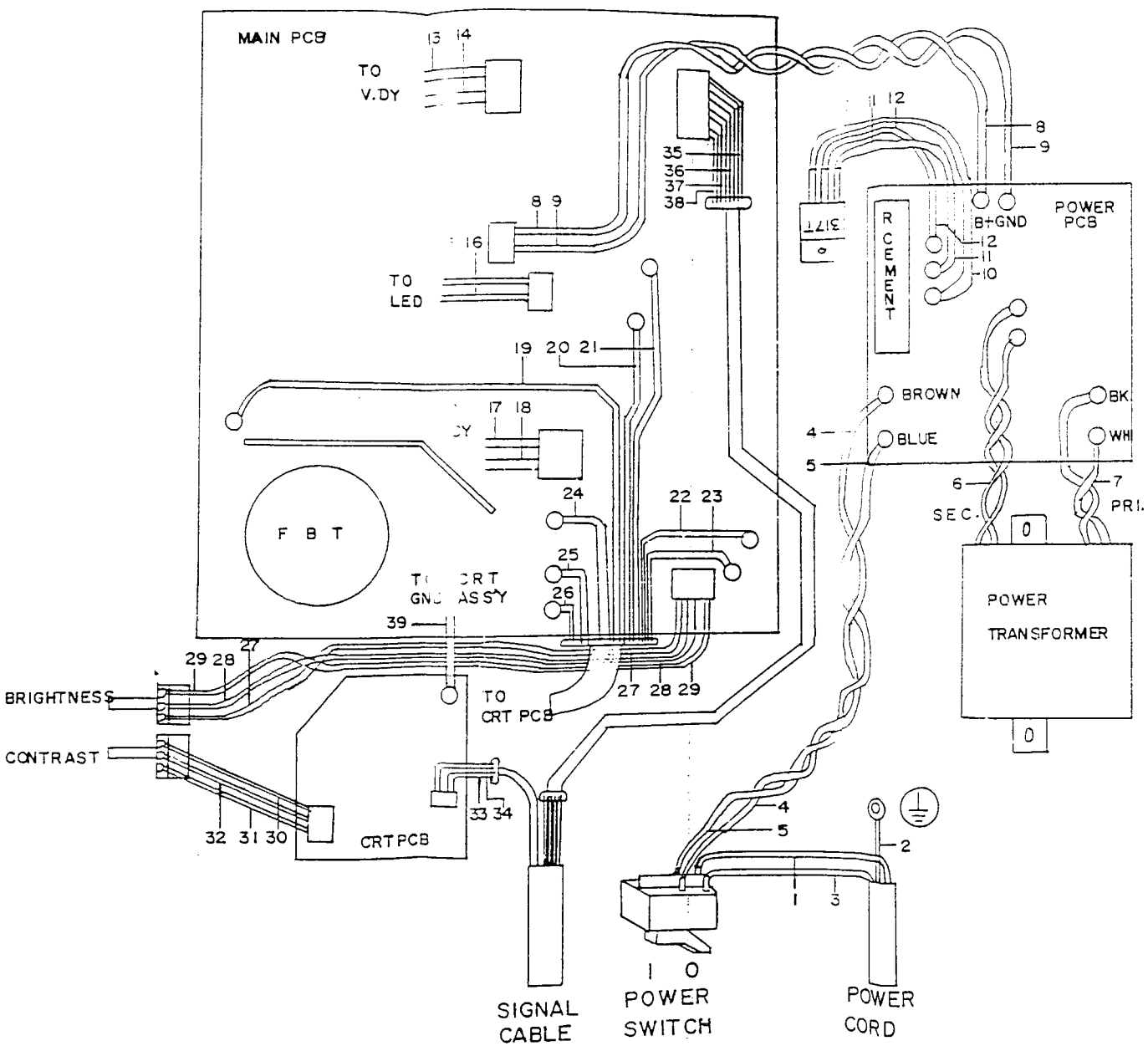
MECHANICAL EXPLODED VIEW



ALIGNMENT INSTRUCTIONS WILL BE PUBLISHED AS AN AMENDMENT

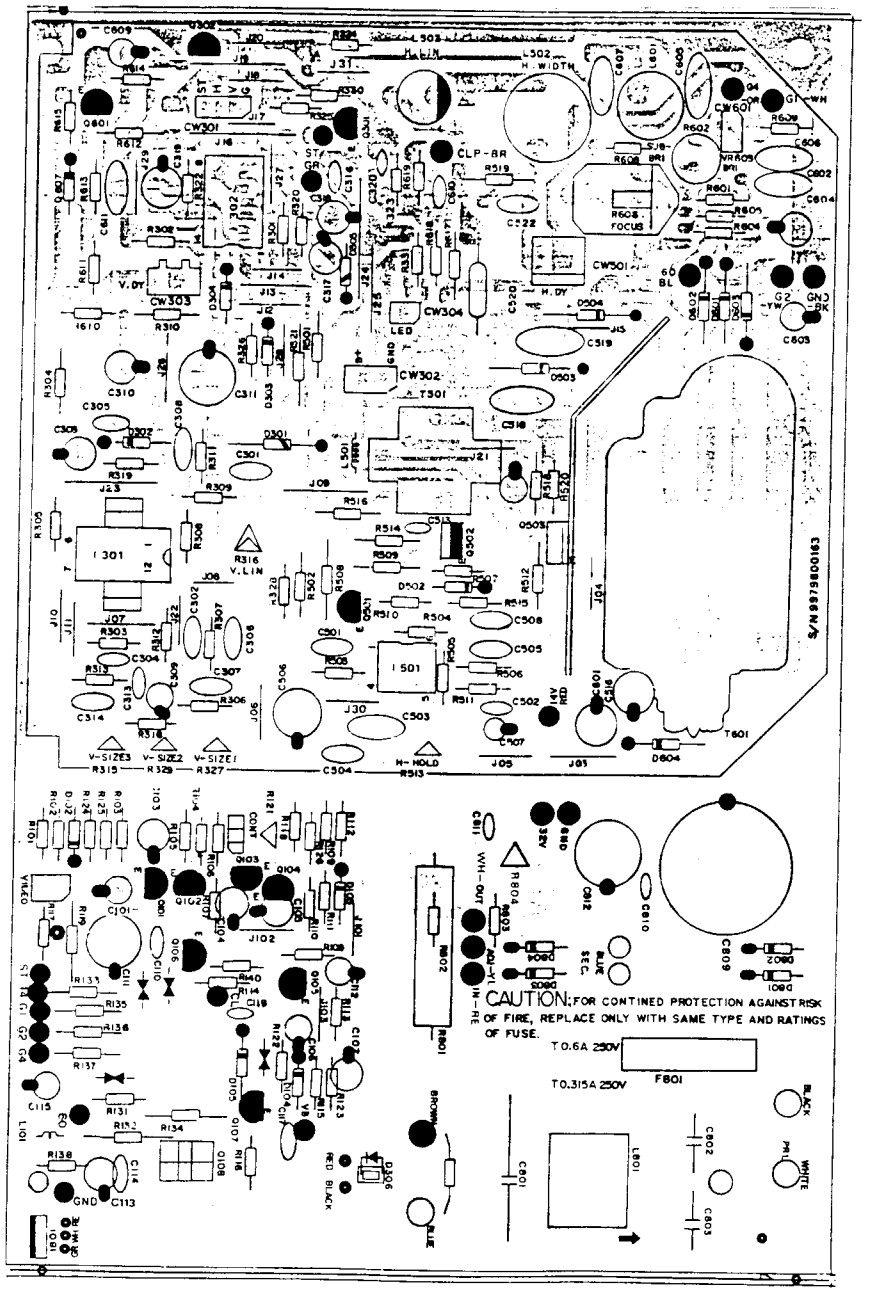
PC12 MD/D MONITOR

PC12 MD/D WIRING DIAGRAM

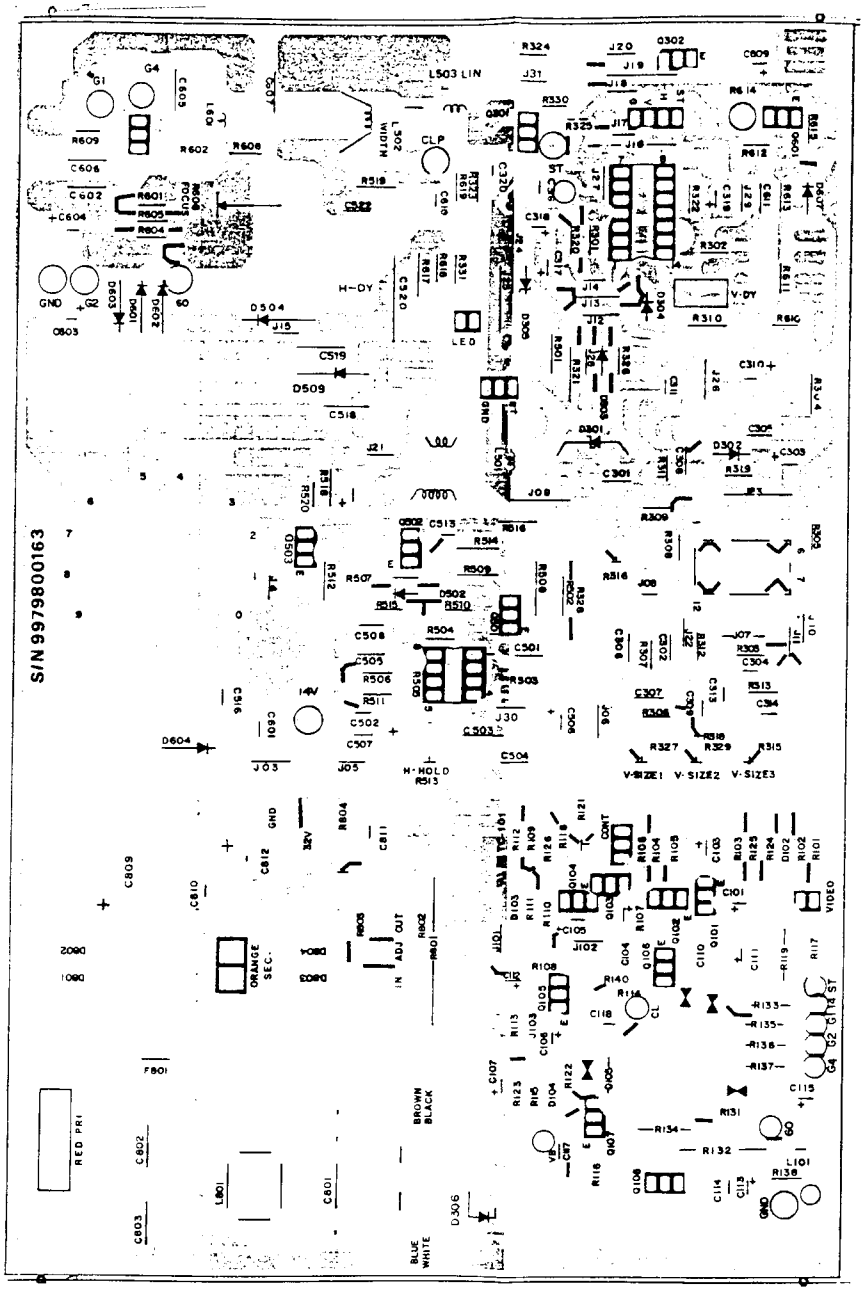


NO.	COLOR	FUNCTION
1 2 3	BLUE GREEN,YELLOW BROWN	POWER SUPPLY CORD
4 5	BROWN BLUE	POWER SW TO PCB WIRE
6 7	BLUE(2 WIRE) WH BK	P.T. WIRE
8 9	RED BLACK	B+ SUPPLY
10 11 12	RED GREEN WHITE	REGULATOR IC WIRE
13 14	YELLOW GREEN	V.DY WIRE
15 16	BLACK RED	LED WIRE
17 18	RED ORANGE	H.DY WIRE
19 20 21 22 23 24 25 26	RED BROWN GRAY ORANGE WHITE BLUE YELLOW GREEN	14V WIRE CLP WIRE SELF TEST G4 G1 60V G2 GND
27 28 29	BLUE YELLOW WHITE	BRI. WIRE
30 31 32	RED BLACK GREEN	CONT. WIRE
33 34	WHITE BLACK	VIDEO COAX.
35 36 37 38	BROWN WHITE YELLOW BLACK	SYNC INPUT
39	GREEN	CRT GND

PC12 MD/D POWER SUPPLY PCB COMPONENT LAYOUT


CAUTION: FOR CONTINED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS OF FUSE.
T0.6A 250V
T0.315A 250V
F801
S/N997980163

PC12 MD/D MONITOR PCB COMPONENT LAYOUT



PC12MD/D ELECTRICAL PARTS LIST

Ref. No.	Description	Part No.
IC's		
IC301	IC TDA1170N	175459
IC302	IC 74LS86	175401
Ic501	IC MC1391P	175457
IC801	IC LM317T	175458
Transistors		
Q101-106	TR KTC388A	175446
Q107	TR KTC1959	175444
Q108	TR 2SC3502	175461
Q301, 501	TR KTC1815	170447
Q302	TR KN3904	175447
Q502	TR KTC1569	175442
Q503	TR 2SC2896	175460
Q601	TR KTC2240	175445
Diodes		
D102-105, 303, 304, 502, 607	D 1N4148	190715
SG01-4		175861
D301	DZ IN5342B	175456
D302, 602-604	D BA157	175453
D305	DZ 5.1V	176038
D306	LED KLG-208E	175327
D50, 5043	D MR854	175455
D601	D BA159	175454
D801-804	D 1N4002	175440
Coils		
L101	Coil 5.6uH	175426
L301	Coil Deflection Yoke	175438
L501	Coil 27uH	175423
L502	Coil H Width HW-220	175427
L503	Coil H Linearity	175425
L601	Coil D Focus HF-127	175424
L801	Coil Line Filter	175428
T501	Trans Hori Dr [illegible]DT127	175429
T601	Trans Flyback	175439
T801	Trans Power	175430
Variable Resistors		
VR120	VROT 500Ω Contrast Con	176510
VR121	VRSF 1kΩ Sub Contrast	176511
R313	VRSF 200kΩ V Size 3	176512
R316	VRSF 100kΩ V Linearity	176513
R327	VRSF 200kΩ V Size 1	176514
R329	VRSF 1MΩ V Size 2	176515
R513	VRSF 5kΩ H [illegible]	176516
R602	VRSF 200kΩ [illegible] Brightness	176517
VR603	VROT 100kΩ Brightness Con	176518
R804	VRSF 1kΩ	176519
R606	VRSF 2MΩ Focus Control	176520
Miscellaneous		
V101	CRT Monochrome MN1230HL7AU	175452
	CRT Socket	175404
F801	Fuse 0.6A(T) 250V	175437
SW801	Power On/Off Switch	175351
PCB	Monitor PCB CM-128A	175441
	D-Sub Connector, Video	175993

Description	Ref. No.	Part No.
Resistors (All resistors are ¼W unless stated otherwise)		
47Ω	R[illegible]24	176342
56Ω	R[illegible]00	10026
75Ω	R[illegible]26	151612
100Ω	R[illegible]	10032
120Ω	R[illegible]35, 615	10034
220Ω	R802	10040
270Ω	R325	10042
330	R320, 322	10044
470Ω	R[illegible]	10048
510Ω	R[illegible]	176521
560Ω	R[illegible]18, 125	10050
820Ω	R[illegible]07	10054
1kΩ	R[illegible]13, 135, 140	10061
1.5kΩ	R[illegible]10, 613, 614	10065
2kΩ	R[illegible]04	202211
2.4kΩ	R112	176522
2.7kΩ	R313, 330	10068
3.3kΩ	R319	10073
4.87kΩ	R803	176523
5.1kΩ	R610, 618	176524
5.5kΩ	R102, 109, 311	10079
6.2kΩ	R107, 609	176525
8.2kΩ	R[illegible]	10083
10kΩ	R[illegible]01, 519	10085
12kΩ	R[illegible]11	10087
15kΩ	R106, 124, 324	10089
18kΩ	R611	10091
24kΩ	R301, 302	176526
33kΩ	R308	10097
36kΩ	R323	176527
39kΩ	R309	10099
47kΩ	R515	10101
51kΩ	R601, 612	176528
75kΩ	R[illegible]	176529
100kΩ	R[illegible]06	10109
130kΩ	R[illegible]	176530
220kΩ	R318	10117
240kΩ	R306	176531
330kΩ	R604	10121
510kΩ	R307	176532
1MΩ	R603, 608	10147
0.47Ω/½W	R136, 137, 518	176533
1Ω/½W	R310	175062
3.3Ω/½W	R304	176322
22Ω/1W	R[illegible]	171079
27Ω/½W	R[illegible]	176534
60Ω/10W	R80[illegible]	176535
150Ω/½W	R516	10154
220Ω/1W	R321	800207
470Ω/½W	R134, 519	1422125
820Ω/2W	R132	176536
1.2kΩ/1W	R508	176537
22kΩ/½W	R509	176538
56kΩ/½W	R512, 617	176539

Description	Circ. Ref.	Part No.
Ceramic Capacitors		
56pF	C320	1400362
100pF	C510	1422143
150pF	C117	176540
1000pF/1kV	C118	175884
0.0047uF/ 250V AC	C802, 803	175885
0.01uF	C114, 810, 811	810312
0.01uF/500V	C606	175886
0.01uF/1kV	C602	175887
0.1uF/250V AC	C801	171658
Mylar Capacitors		
0.01uF	C304, 316	175888
0.1uF	C110, 301, 302, 305-308, 503	175889
Polypropylene Film Capacitors		
0.001uF	C505	175890
0.0015uF	C503	175891
0.0026uF/630V	C607	175892
0.0047uF/630V	C605	175893
0.005uF	C518, 519	175894
Polyester Capacitors		
0.0033uF	C501	175895
0.0047uF	C522	175896
Metalised Polyester Film Capacitors		
0.01uF	C504	175897
0.022uF	C520	175898
0.1uF	C503	175899
Electrolytic Capacitors		
1uF/50V	C112, 319, 507, 609	20062
1uF/160V	C604	1422151
10uF/25V	C317	20037
10uF/50V	C106	176314
10uF/100V	C115	176421
22uF/50V	C309	175900
33uF/16V	C113	175901
47uF/10V	C101, 104, 105, 107	170420
47uF/100V	C603	175902
100uF/25V	C103, 601	800370
100uF/50V	C303, 516	176320
220uF/25V	C111	175903
330uF/25V	C506	175904
330uF/50V	C812	175905
1000uF/35V	C310, 311	1422159
2200uF/63V	C809	175906

C : CERAMIC CAPACITOR

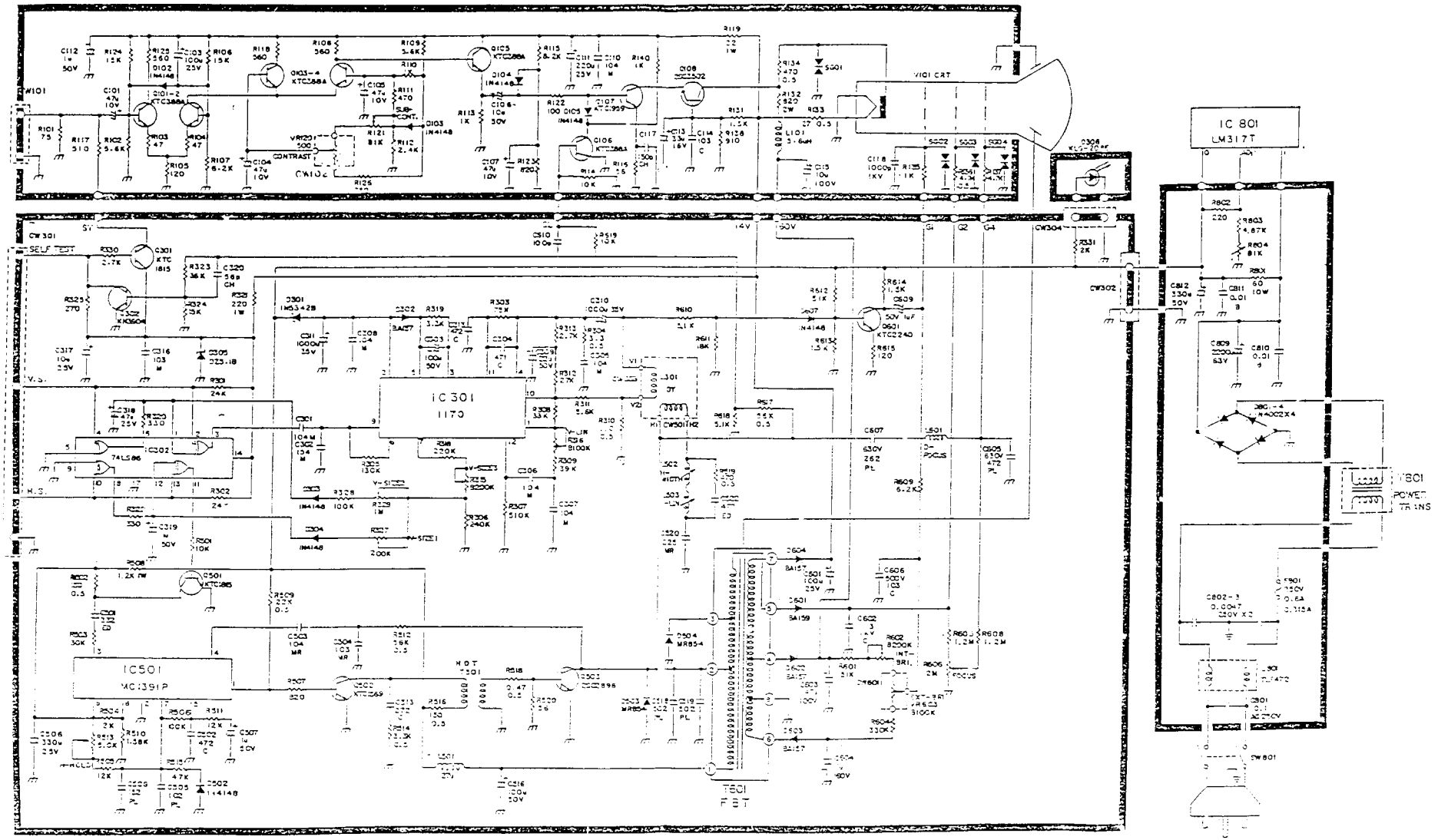
M : MYLAR INDUCTIVE CAPACITOR (POLYESTER FILM CAPACITOR)

ED : POLYESTER FILM CAPACITOR

MR : METALLIZED POLYESTER FILM CAPACITOR

PL : POLYPROPYLENE FILM CAPACITOR

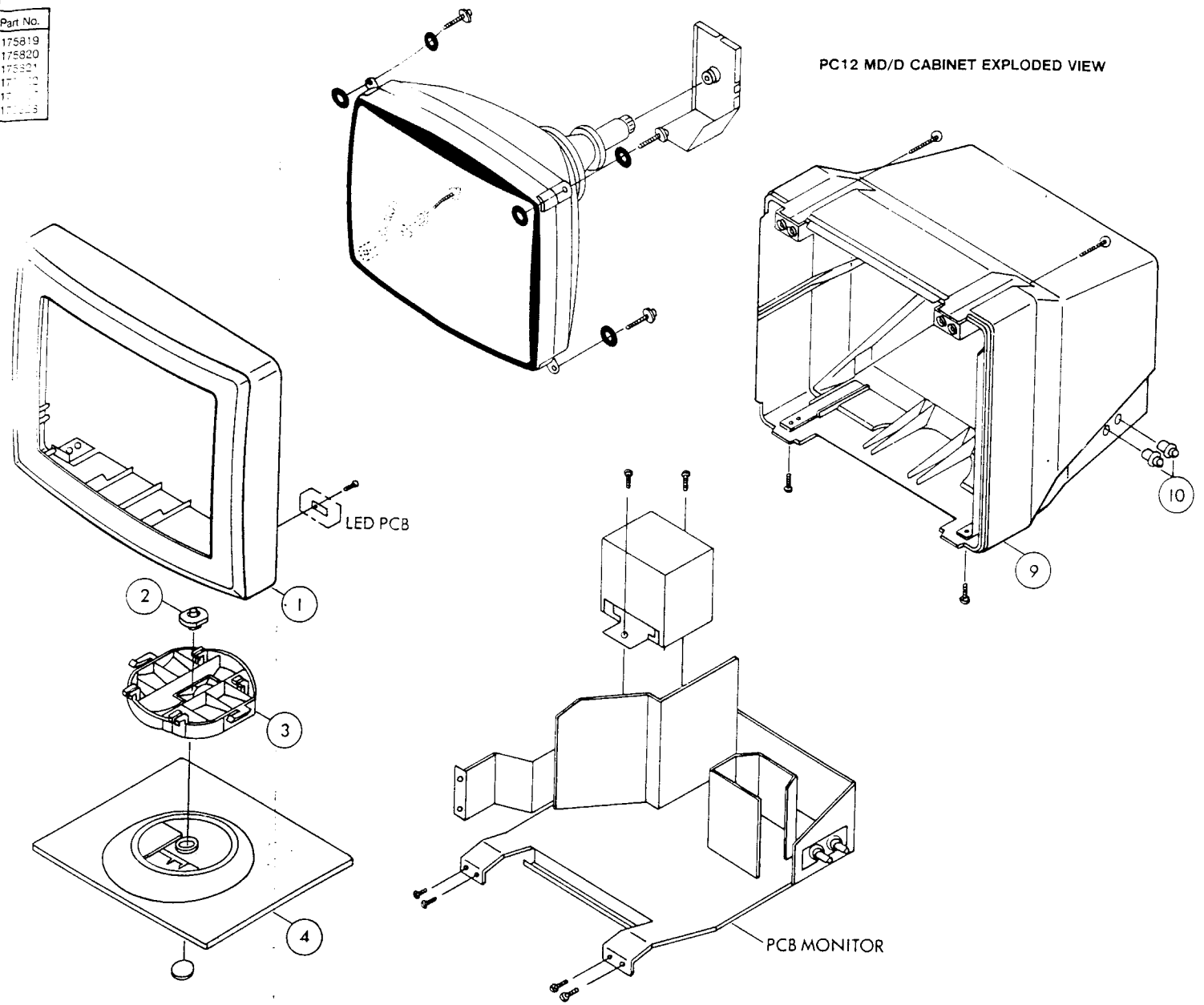
PC12 MD/D SCHEMATIC DIAGRAM



PC12MD/D CABINET PARTS LIST

Ref.	Description	Part No.
1	Cabinet Front Assy	175819
2	Holder Stand	175820
3	Stand Top	175821
4	Stand Bottom	175[illegible]
9	Cabinet Back	175[illegible]
10	Knob Volume	175[illegible]

PC12 MD/D CABINET EXPLODED VIEW



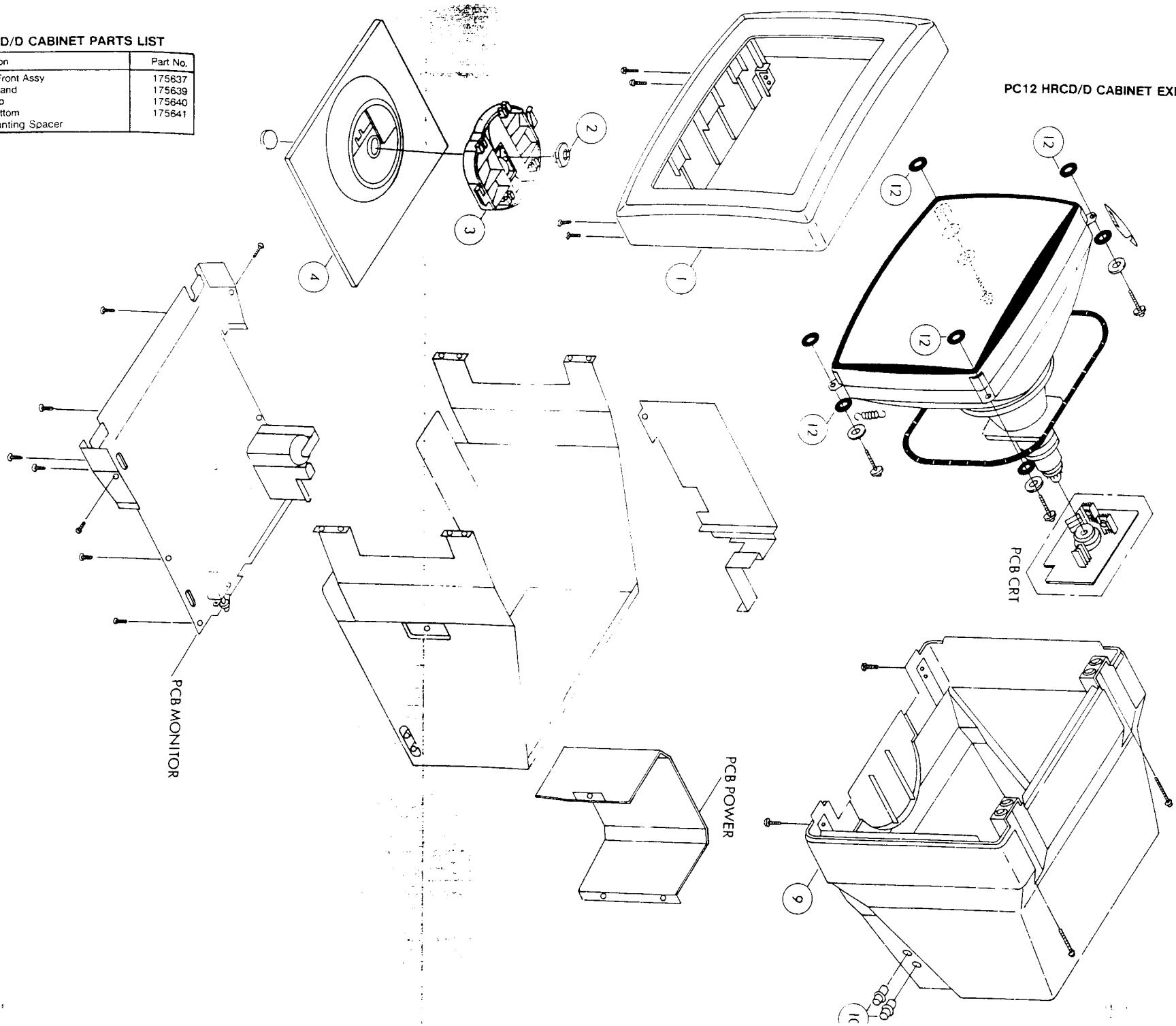
PC-12 HRCD/D MONITOR

ALIGNMENT INSTRUCTIONS WILL BE PUBLISHED AS AN AMENDMENT

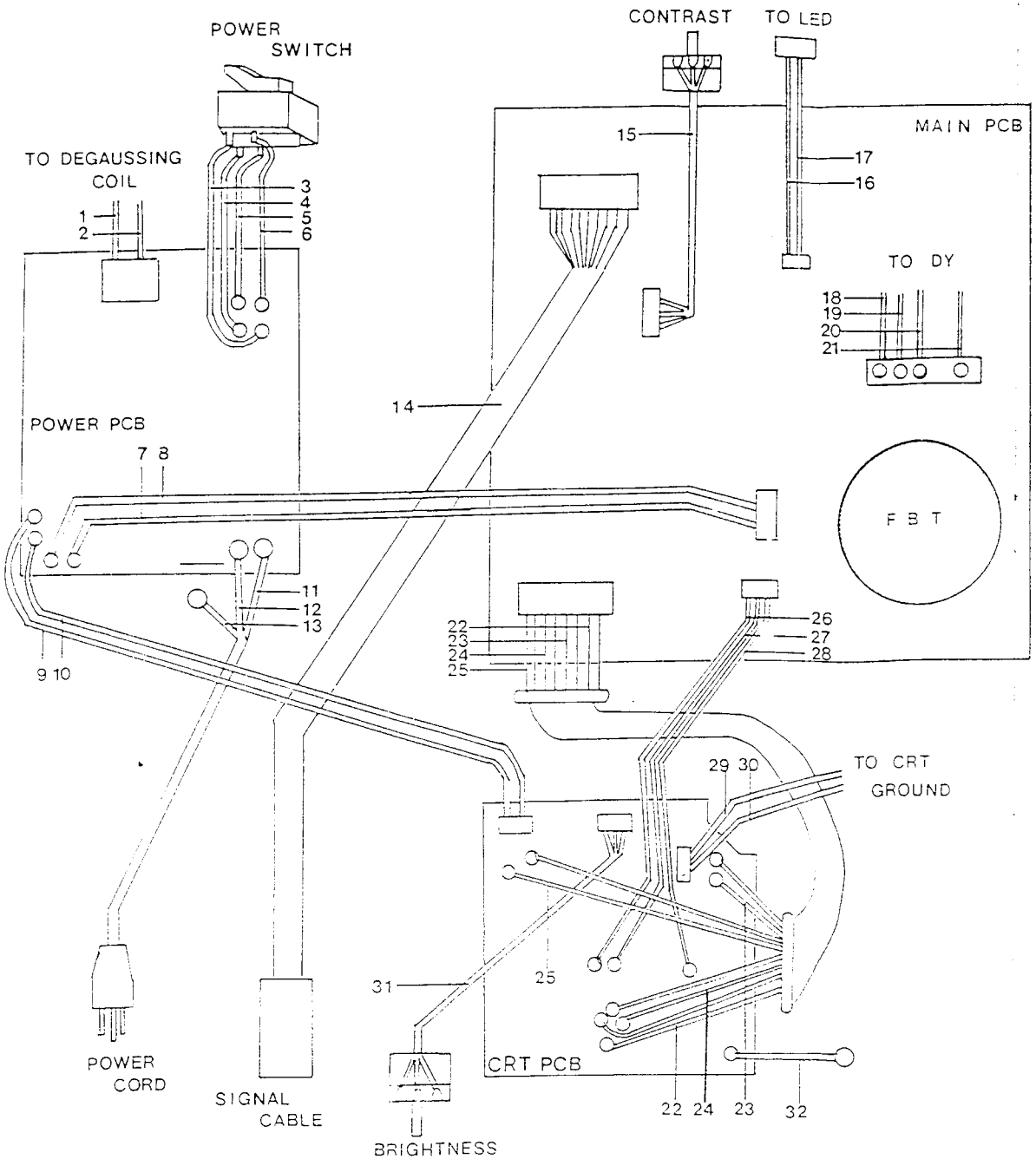
PC12 HRCD/D CABINET PARTS LIST

Ref.	Description	Part No.
1	Cabinet Front Assy	175637
2	Holder Stand	175639
3	Stand Top	175640
4	Stand Bottom	175641
12	CRT Mounting Spacer	

PC12 HRCD/D CABINET EXPLODED VIEW

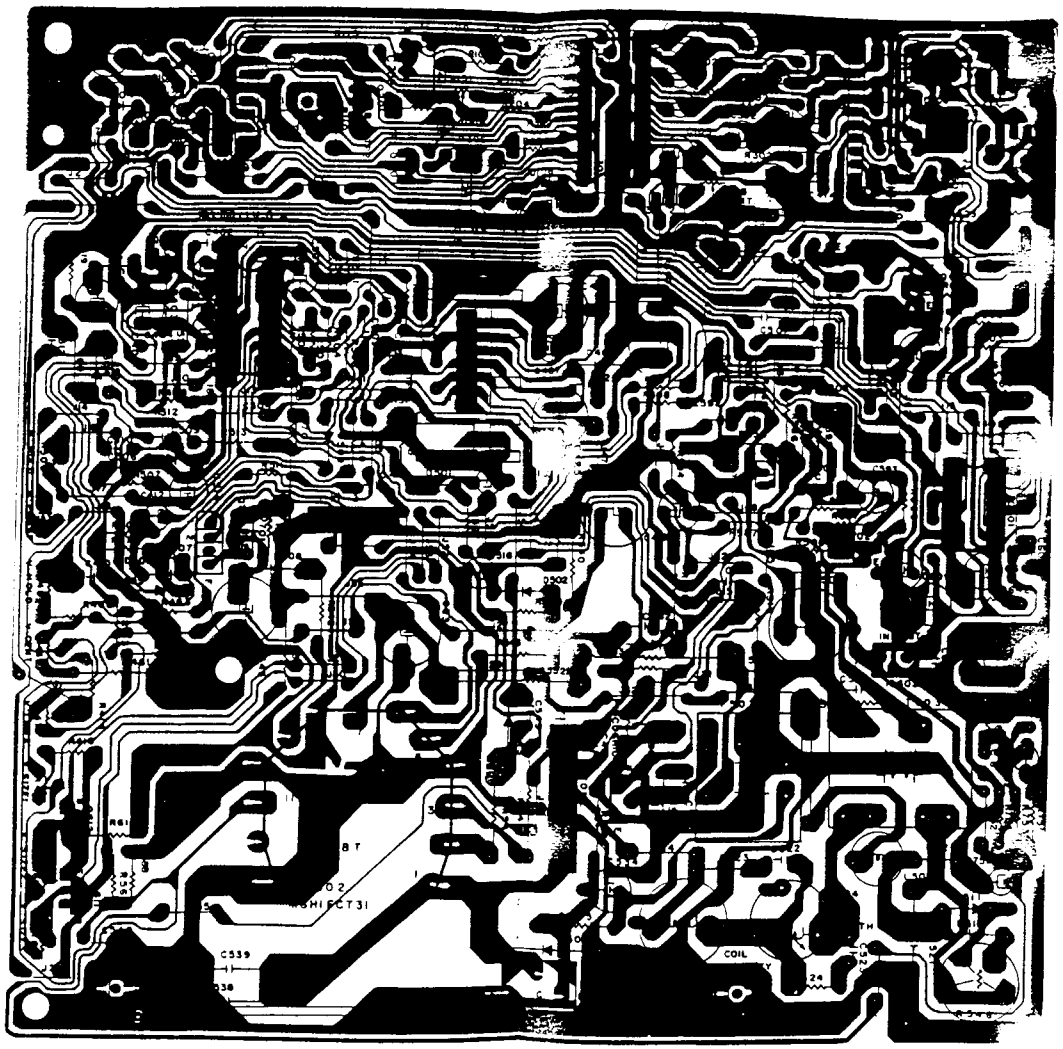


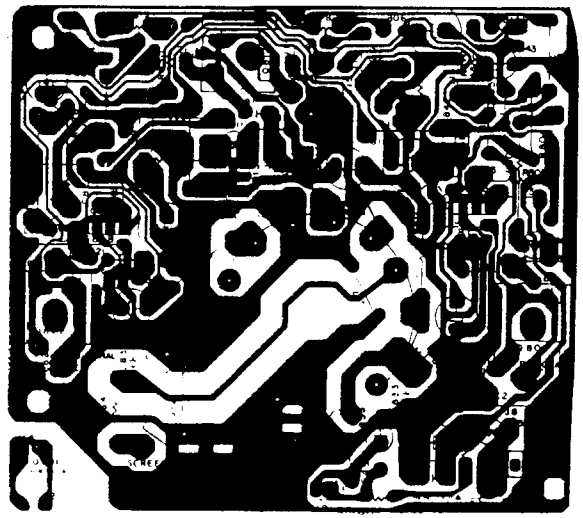
PC12 HRCD/D WIRING DIAGRAM



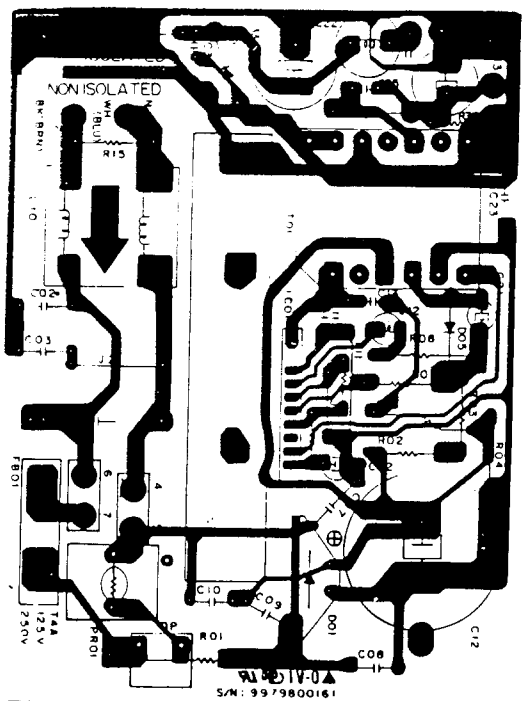
NO	COLOR	FUNCTION
1 2	GREEN	DEGAUSSING COIL WIRE
3 4 5 6	ORANGE BLUE GREEN RED	POWER SWITCH WIRE
7 8	YELLOW BLACK	B+ 100V LINE
9 10	BLACK RED	B+ 75V LINE
11 12 13	BROWN BLUE GREEN	POWER CORD
14	BLACK	SIGNAL CABLE
15	BLUE	CONTRAST
16 17	BLACK RED	LED
18 19 20 21	GREEN YELLOW BLUE RED	DY CONNECTOR
22 23 24 25	GRAY BLUE GREEN RED	R G B SIGNAL
26 27 28	BLACK GREEN RED	200V LINE
29 30	BLACK	CRT GND
31	GRAY	BRIGHTNESS
32	BLACK	CHASSIS GND

PC12 HRCD/D MONITOR PCB COMPONENT LAYOUT



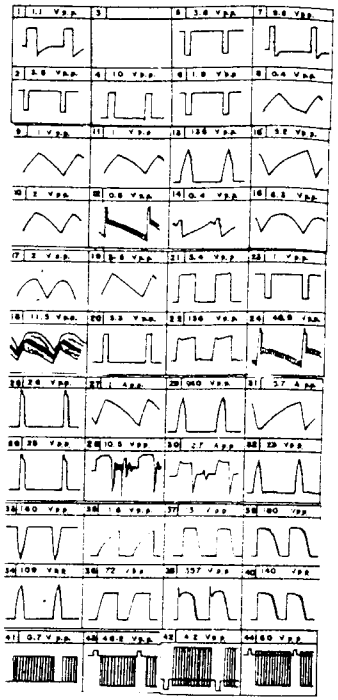


PC12 HRCD/D CRT PCB COMPONENT LAYOUT

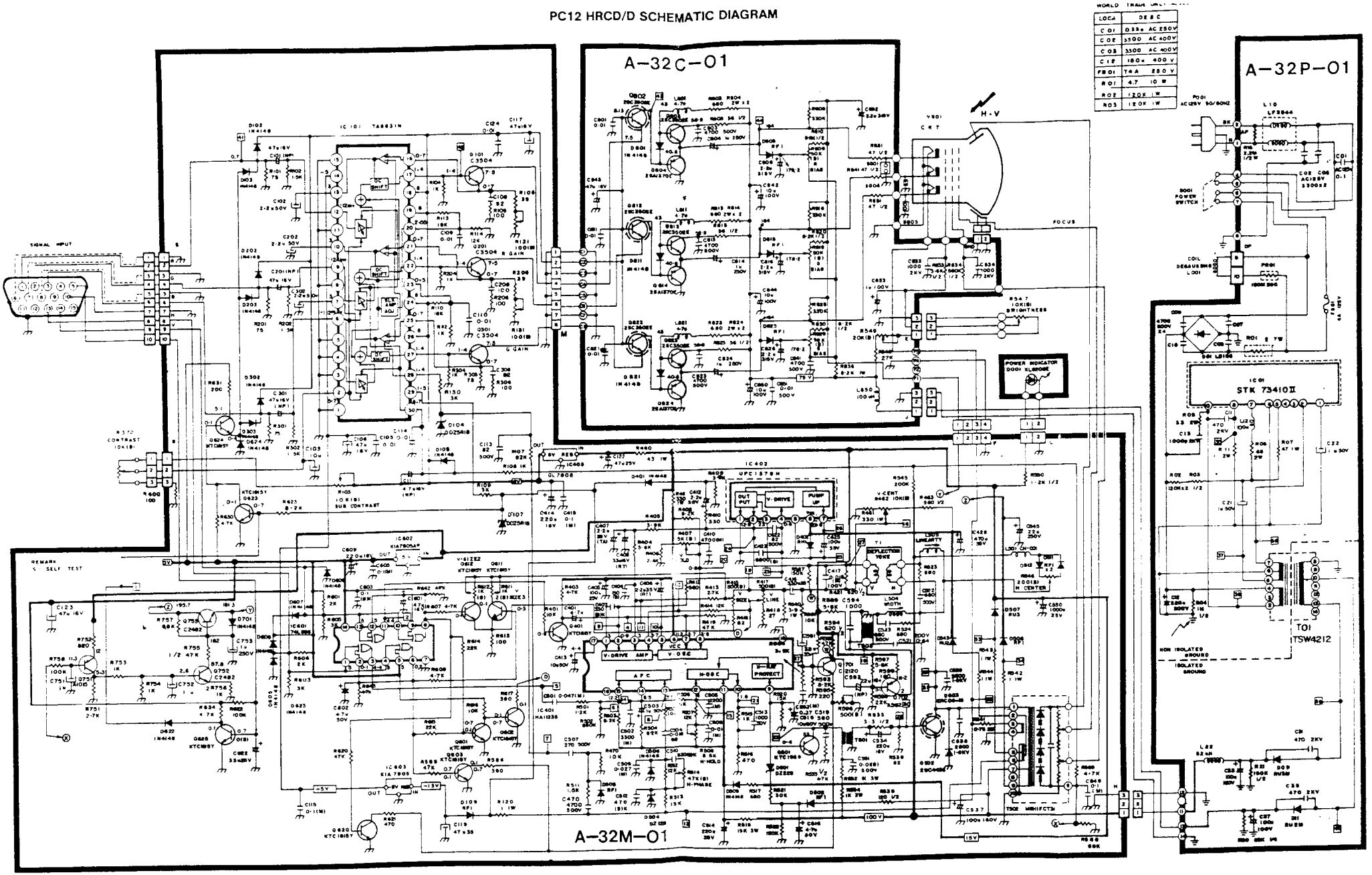


PC12 HRCD/D POWER SUPPLY PCB COMPONENT LAYOUT

WAVE FORMS



PC12 HRCD/D SCHEMATIC DIAGRAM



LOCA	DESC
C01	0.33μ AC 250V
C02	3300 AC 400V
C03	3300 AC 400V
C12	180μ 400 V
FB01	T4A 250 V
R01	4.7 10 W
R02	120K 1W
R03	120K 1W

NOTE

1. RESISTANCE IS SHOWN IN OHM, K=1,000, M=1,000,000.
2. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES LESS THAN 1 ARE EXPRESSED IN mfd AND THE VALUES MORE THAN 1 IN pF.
3. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL INDUCTOR VALUES MORE THAN 1 ARE EXPRESSED IN mH AND THE VALUES LESS THAN 1 IN H.
4. VOLTAGES READ WITH "VTVM" FROM POINT INDICATED TO CHASSIS GROUND. USING A COLOR BAR SIGNAL WITH ALL CONTROLS AT NORMAL. LINE VOLTAGE 120 VOLTS AC.
5. VOLTAGE READINGS SHOWN ARE NOMINAL VALUES AND MAY VARY ±20% EXCEPT H-V.
6. THIS CIRCUIT DIAGRAM IS A STANDARD ONE, CIRCUITS PRINTED MAY BE SUBJECT TO CHANGE FOR PRODUCT IMPROVEMENT WITHOUT PRIOR NOTICE.

"WARNING"

BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION" "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" IN THE SERVICE MANUAL

CAUTION- TO THE SERVICE TECHNICIANS;

BEFORE RETURNING THE RECEIVER TO THE CUSTOMER, TO MAKE APPROPRIATE LEAKAGE CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE PROPERLY INSULATED FROM THE SUPPLY CIRCUIT.

CAUTION ; THE SHADED AREAS IN THE SCHEMATIC

DIAGRAM DESIGNATE COMPONENTS WHICH HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY AND SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIRCUIT OR SPECIFIED IN THE PARTS LIST.
DO NOT DEGRADE THE SAFETY OF THE RECEIVER THROUGH IMPROPER SERVICING.

MODEL PC12 -RCD/D ELECTRICAL PARTS LIST

Ref. No.	Description	Part No.
IC's		
IC01	IC STK73410II	175347
IC101	IC TA8631N	175348
IC401	IC HA11235	175346
IC402	IC UPC1378H	170444/A
IC403	IC GL7808	175323
IC601	IC 74LS86	175401
IC602	IC KIA7805AP	190731
IC603	IC KIA7905	177289
Transistors		
Q101, 201, 301	TR 2SC3504	175354
Q401, 601-603, 611, 612, 620, 623-625	TR KTC1815Y	170447
Q501	TR KTC1569	175332
Q502	TR 2SC4436	175355
Q701	TR 2SC2120	170113
Q702	TR 2SA562	175331
Q751	TR 2SA1015Y	170453
Q752, 753	TR 2SC2482	175334
Q802, 803, 812, 813, 822, 823	TR 2SC3502E	175461
Q804, 814, 824	TR 2SA1370E	175352
Diodes		
D102, 103, 108, 202, 203, 302, 303, 401, 506, 509, 605-608, 622, 624	D 1N4148	190715
D104, 107	DZ DZ5R1B	176038
D109, 502, 505, 508, 511, 512, 805, 815, 825	D RF1	175339
D402	D RH1	175340
D501	DZ DZ22B	175321
D503	D ERC06-15	175338
D504	DZ DZ12B	175320
D507, 09	D RU3	175342
D543, 11	D RU2	175341
D01	D LB158	175319
D001	LED KLG208E	175327
Coils		
L10	Coil Line Filter LF3544	175305
L001	Coil Degauss	175301
L22	Coil 82uH	175298
L501	Coil CH-001	175300
L504	Coil Width TRW-141CW	175304
L505	Coil Linearity TRL-27L	175302
L801, 811, 821	Coil 4.7uH	175303
OY1	Coil Deflection Yoke	176500
T01	Power Trans Switching TSW4212	175307
T501	Trans Hori Drive THD-141A	175306
T502	Trans F.B. MSHIFCT31	175344
T503	Trans Pin Cushion TPC-3001	175308

Description	Circ. Ref.	Part No.
Electrolytic Capacitors		
1uF/50V	C21, 22, 503, 751, 752	20062
1uF/100V	C853	176569
1uF/250V	C753, 804, 814, 824	1422152
2.2uF/35V	C406	176570
[illegible]uF/50V	C102, 202, 302, 412	175144
[illegible]2uF/315V	C806, 816, 826, 852	1765[illegible]
[illegible]7uF/50V	C401, 516, 602	14002[illegible]
[illegible]0uF/16V	C103	201[illegible]
10uF/50V	C413, 515	176314
10uF/100V	C842, 844, 850	176056
22uF/16V NPO	C593	176572
22uF/250V	C545	176573
33uF/16V	C406	175901
33uF/25V	C622	176574
33uF/35V	C591	176575
[illegible]7uF/16V NPO	C101, 111, 201, 301	176576
[illegible]uF/16V	C106, 117, 123, 601, 843	176[illegible]
[illegible]uF/25V	C122	151[illegible]
47uF/35V	C119	176[illegible]
100uF/25V	C405	800370
100uF/35V	C425	176579
100uF/100V	C37	176580
100uF/160V	C33, 537	176581
220uF/16V	C414, 534, 609	150523
220uF/25V	C514	176582
220uF/200V	C12	176583
[illegible]20uF/35V	C416	176584
[illegible]70uF/35V	C428	17[illegible]
[illegible]00uF/25V	C550	1422[illegible]
Tantalum Capacitors		
2.2uF/35V	C407	176585
Ceramic Capacitors		
82pF	C108, 208, 308	176586
82pF/500V	C113, 422	176587
150pF	C404	175972
270pF/500V	C507	175973
[illegible]30pF	C402	175974
[illegible]0pF	C512	1763[illegible]
470pF/2kV	C31, 35	175975
560pF/500V	C519	175976
680pF/500V	C522, 523	175977
820pF	C510	175978
1000pF	C513, 594	175979
1000pF/2kV	C833, 834	176429
2600pF/1.6kV	C538, 539	175980
4700pF/500V	C07-10, 470, 803, 813, 823, 841	175981
6800pF	C423	175982
[illegible].01uF	C105, 109, 110, 114, 124, 801, 811, 821	810312
[illegible].01uF/500V	C551, 851	175983
0.1uF	C603	176307
0.68uF/200V	C521	175984
Mylar Capacitors		
2200pF	C505	175985
3300pF	C502	175986
4700pF	C410	175987
0.01uF	C504, 506	175888
0.015uF/100V	C417	175988
0.027uF	C509	175989
0.047uF	C501	175990
0.1uF	C415, 549	175889
0.27uF	C592	175991

Description	Ref. No.	Part No.
Resistors		
27Ω	R418	10017
39Ω	R105, 205	171080
75Ω	R101, 201, 301, 305	152163
82Ω	R416, 538	10031
100Ω	R106, 206, 306, 505, 600, 613	10032
180Ω	R599	10038
330Ω	R410	10044
390Ω	R586, 617	10046
470Ω	R516, 621	10048
560u	R412	10050
680Ω	R517, 523, 524	10052
820Ω	R752	10054
1kΩ	R104, 108, 112, 204, 304, 505, 753, 754, 756	10061
1.2kΩ	R501	10063
1.5kΩ	R102, 302, 511	10065
2kΩ	R601, 606	176502
2.4kΩ	R406	176503
2.7kΩ	R413, 751	10068
3kΩ	R109, 603, 605	176504
3.9kΩ	R405, 409, 584	10075
4.7kΩ	R403, 607, 608, 630, 634, 642, 645	10077
5.6kΩ	R404, 597, 599	10079
6.8kΩ	R757	10081
8.2kΩ	R406, 503, 504, 593, 623	10083
10kΩ	R401, 470, 591, 616	10085
12kΩ	R114, 414, 507, 512	10087
15kΩ	R513, 520	10089
18kΩ	R110, 113	10091
22kΩ	R596, 615	10093
27kΩ	R548	10095
30kΩ	R521	176505
47kΩ	R419, 585, 592, 620	10101
68kΩ	R30, 506, 533	10105
82kΩ	R107	10107
100kΩ	R622, 756	10109
150kΩ	R522, 587	176506
200kΩ	R545	176507
330kΩ	R808, 818, 828	10121
680kΩ	R502	10129
1.5MΩ	R202	201710
0.75Ω/2W	R541	175923
1Ω/1W	R120, 542-544	175924
1Ω/2W	R11	176541
2Ω/7W	R01	176542
3.3Ω/½W	R535	176543
3.9Ω/1W	R591	176544
4.7Ω/½W	R533	176545
33Ω/2W	R05	176546
43Ω/1W	R460	176547
47Ω/½W	R831, 841, 851	176548
47Ω/1W	R07	176549
56Ω/½W	R805, 815, 825	176550
68Ω/2W	R08	176551
120Ω/½W	R539	176552
330Ω/1W	R461	176553
330Ω/1W	R411	176554
560Ω/½W	R463	176555
620Ω/2W	R803, 804, 813, 814, 823, 824	176556
1kΩ/3W	R532, 534	176557
1.2kΩ/½W	R550	176558
5.6kΩ/½W	R833	176559
8.2kΩ/½W	R810, 820, 830	176560
8.2kΩ/1W	R836	176561
15kΩ/3W	R518	176562
47kΩ/½W	R755	176563
120kΩ/½W	R02, 03	176564
150kΩ/½W	R21	176565
560kΩ/½W	R834	176566
1MΩ/½W	R04	176567
2.2MΩ/½W	R15	176568

Circ. Ref.	Description	Part No.
Variable Resistors		
R103	VRSF 10kΩ Sub Contrast	175907
R121	VRSF 100Ω R Gain	175908
R131	VRSF 100Ω G Gain	175908
R370	VROT 10kΩ Contrast Con	175910
R407	VROT 5kΩ V Hold	175911
R415, 417	VRSF 500Ω V-Size/V-Linearity	175912
R462	VRSF 10kΩ V-Centre	175913
R508	VRSF 5kΩ H Hold	175914
R514	VRSF 47kΩ H Phase Con	175915
R546	VRSF 200Ω H Centering	175916
R547	VROT 10kΩ Brightness Con	175917
R549	VRSF 20kΩ Sub Bright Con	175918
R596	VRSF 500Ω	175919
R611, 612	VRSF 1kΩ V-Size 2/3	175920
R809	VRSF 50kΩ R Bias	175909
R819	VRSF 50kΩ G Bias	175909
R829	VRSF 50kΩ B Bias	175909
Miscellaneous		
SG01, 03, 04	Spark Gap	175921
V801	CRT E8032B22-TC37ETHT	175337
	CRT Socket	175922
SW001	Switch Power	175351
	D Sub Connector, Video	175992
PCBs		
	PCB CRT	175328
	PCB Main	175329
	PCB Power	175330